THE TRI-STATE
Medical Journal and Practitioner

VOL. VI., NO. 5. MAY, 1899.

Issued Monthly for One Dollar a Year.

EDITORIAL DEPARTMENT.

WARREN B. OUTTEN, M. D., - - - EDITOR.
JAMES MOORES BALL, M. D., - - - ASSOCIATE EDITOR.
OTHO F. BALL, M. D., - - - - - BUSINESS MANAGER.

Address all communications, news of medical interest, subscriptions, etc., to the TRI-STATE MEDICAL JOURNAL AND PRACTITIONER, CENTURY BUILDING, ST. LOUIS, MO.

THE INCREASE OF AND THE MODERN CAUSES OF INSANITY.

Insanity seems not only to keep pace with an increase of population, but with the various phases of human development. According to the census of the United States, from 1850 to 1880, a period of thirty years, the population doubled, while the insane increased six-fold. Thus, in 1850 there were 15,610 insane persons, while in 1880 there were 91,994. In the last decade the increase in population was thirty per cent., and that of the insane one hundred and fifty-five per cent. It is asserted that many of the insane are not produced, but are only revealed by civilization. It is an established fact that civilization has developed new forms of disease which had not existed before. It is asserted that general progressive paralysis was formerly so rare that no special name was given to it until our time; and now it appears to form the larger number of the maladies of the wealthy, of thinkers, and of military men. The many neuroses and psychoses produced by alcoholism are pre-eminently modern, hence has become a disease-producing agency of the present; the ancients did not drink alcoholic beverages, and in the Middle Ages they were used as remedial agents. It would seem that with an advanced condition of civilization the use of alcoholics increase. Again, with the increased demands upon the nervous system engendered by modern life, stimuli of the nervous system are sought; hence alcoholism, morphinism and cocainism indicate that stable alterations have been produced upon man's nervous system and have begot a long series of pathological conditions. The frenzied and feverish activity of modern life has one constant tendency towards producing brain strain, begetting multitudes of neurasthenics, hysterics, megalomaniacs

and monegomaniacs. Such is the deep, profound and inground created master passion for wealth that all of God's gifts are sacrificed in the hope of obtaining gold. Indeed, the intense seeking after gold often assumes a fixed idea as intense as any fixed idea in the insane, and thus it is that often it has such close association with crime and tints insanity of the present day with elements connected with it. There is no doubt but that civilization constantly deranges the equilibrium of the mind, and is, therefore, an indirect cause of the increase in insanity. The suggestive idea of a civilization possessing sufficient nerve-exhausting elements readily moulds the insane, as suggestive ideas have force. Social factors, political events, wars, religious heredity, are ever-acting causes. Occasional causes of a moral character are only changed in phase, whilst general causes are much the same. Religious insanities are relatively infrequent now in comparison to what they were formerly; the character of the delusion and hallucinations in some are always a reflex of the paramount and fixed idea of the age by which they are surrounded. Materialism has replaced spiritualism; hence the insane of to-day have delusions and hallucinations pertaining to the material type. The ponderous influence of wealth-getting at this present time is seemingly the most terrific influence in begetting insanity which man has ever seen. Congenital and acquired defective nervous organizations become insane owing to the forces surrounding the seething mental activity engendered in obtaining wealth. Dr. John H. Girdner, in a recent number of the *North American Review*, well expresses the influence of the present causes of insanity, and concludes with the following:

"The struggle for existence, modern inventions, steam and electricity, and the mad rush for wealth, result in ever-increasing demands upon the brain and nervous system. And under this strain, many who have congenital or acquired defective nervous organizations become insane, just as the same class formerly did as a result of fear and brooding over theological problems.

"The insane are not now tormented by the devil and his imps, but telephones and phonographs are continualiy rlnging in their ears. Others suppose they have steam engines in their heads, and many imagine they are persecuted by men of large fortunes or of great political power. Formerly, those who were afflicted with delusions of grandeur were prone to imagine themselves to be the Savior of the world or the Virgin Mary, or some eminent saint. Now they are more apt to think themselves to be great inventors or powerful politicians, or the possessors of untold wealth. The delusions of the insane always take form and color from the questions and problems which are most absorbing at the time."

THERE IS A BRILLIANT FIELD IN RAILWAY SERVICE FOR THE BEST BENEFITS IN ORGANIZATION AND CO-OPERATION—A SUGGESTION.

The railway employé has long since passed the period in which poverty is an attendant on his vocation. He has now every element conducive to his better being. His wages are uniformly higher than in any other vocation employing so large a mass of people. Compare him to the "sweater," who gets sixty-nine cents a week; to the iron laborer, who

gets one hundred and forty dollars a year; or to the medical profession of Italy, whose average earning power for twenty-two thousand does not reach a dollar a day. Thus, in Italy, the *condota medica*, salaried physicians, get only two hundred and forty dollars a year, and are compelled to face a future which seems destined to even reduce this. It can be truthfully said that no labor in the world to-day stands in such splendid position as does railway labor. Their life is one of opulence in comparison to the great mass of the laboring world, and their future certainly suggests improvement in the best of every element. When the history of any vocation shows a constant improvement in wages and *morale*, plainly then it is only a mere matter of time, irrespective of all adverse conditions, when this vocation will be superior to the influences which surround labor.

It can be truthfully said that the result of organized labor upon the railway has guaranteed to every man the use of all of his powers exclusively for his own benefit. He is freed from the attendant elements of failure which meet those in the commercial world *in tesse*. While his is a dangerous vocation, still, from a financial point of view, it presents more normal points of progress and less general hazards than the great bulk of vocations of earth. In this country he has organized efficient labor associations, which have successfully protected him and increased his worth and efficiency, and has shown that these associations are conducted in a forceful and thoughtful manner. It must be admitted that the protective labor organization as now existing upon the railway, and the relief measures now in force, place the railway employé upon a plane which promises much in the future. There are many points at present which meet the management and the employé of the railway which have to be reconciled. Among them are railway relief organizations, the perfection of an organized service, and the methods of physical examination of the employé. Railway relief insurance departments have been tried for many years, and their benefits and defects sufficiently studied. The same can be said regarding the hospital departments. There exists at the present time the same conditions which have existed for many years—that is, not sufficient trust upon the part of the railway employé regarding the honest intentions of the management, and a lack of trust upon the part of the management as regards the capacity, sincerity and ability of the employé. Such differences must be reconciled before the best results can accrue; hence it would seem that there is only one way to do this, and that is to have a conference and all points discussed honestly and in an unprejudiced manner. Let the heads of the various labor organizations as at present upon the railways meet those who are at present at the head of the railway relief associations and hospital departments, and discuss the best elements at present devised and other questions, such as physical examination of employés. The great fault with our present relief measures seems to be the lack of standard hospital departments, particularly as run upon the existing idea of some general manager or general superintendent. There is no accepted plan, but generally an individual view of the question. If the better elements of relief organization and hospital and other relief measures are duly studied by such a committee, wherein labor is represented by its highest ability and the railway represented by those who have made this a study, surely, some good must result. The

employé upon some of the greatest lines of the country is insured against sickness, accident and death, and pensioned when too old to labor. Surely, the field of investigation is one of rare importance; and if this committee, so constructed, should thoroughly investigate, taking the best elements of all measures, and adopt a standard, it would be of immense benefit to the railways of this country and their employés. The heads of organized labor know the wants of the employé; the heads of railway relief organizations know the business elements and practical points. This union, then, would be competent to reconcile many differences and place the railway employé at the summit of every condition necessary to his condition as a laborer. The immense benefit to the railway in having contented and efficient employés is plainly manifest. There is nothing in this suggestion that can be considered by either side as lessening discipline or tending to ulterior results in any way prejudicial to the parties concerned.

THE HALTING OF OLD AGE.

Dr. Julius Althaus' search for the fountain of youth and the ablation of an early death certainly possesses some elements of reason and sense. One of the saddest pictures in scientific life was from Brown-Sequard's endeavor in this direction with testicular juice. Dr. Althaus divides old age into two classes: *senium prematurum* and *senium proprium*. Old age proper begins at about the sixtieth year and is ushered in by the same changes of the nerve cells of the brain that characterizes *senium prematurum*. The brain in old age dies gradually from within outward, just as growth starts from within outward. If we can retard the progressive death of the nerve cells, we can stop old age; hence he applies electrical currents to parts of the brain to improve the nutrition of the brain. And he avers that he has made old men five or ten years younger in a few weeks under this treatment. Still, we are of the opinion that the prevention of death from old age, or rather premature old age, must depend upon so many conditions that exceptions will be extremely infrequent. There is as much sense in certain rules of longevity as their is in the attempt to make man live longer than was intended. Thus, according to M. I. Holl Schooling, of Brussels, there is an old rule for finding the length of a man's life if the present age lies between twelve and eighty-six years. This is the rule: "Subtract the present age from eighty-six and divide the remainder by two; the result will give the number of years you have yet to live. This old rule was discovered by the mathematician De Moiore, who emigrated to England from France in 1865 and became a member of the Royal Society. The curves given by M. Schooling are interesting to examine. A first diagram shows the chance that every man has of living one year longer than at his present age. At birth this chance is five to one; at five years, one hundred and nineteen to one; at ten, five hundred and twelve to one; at fifteen, three hundred and forty-seven; at twenty, two hundred and seven; at twenty-five, one hundred and fifty-six; at thirty, one hundred and twenty; at thirty-five, ninety-seven; at forty, seventy-eight, etc. M. Schooling affirms from his calculations that of one thousand individuals of sixty years, five hundred and ninety-nine will live to be seventy, one hundred and twenty to eighty years, and

seventeen to be ninety. Of one thousand nonagenarians four will reach their hundreth year. We may add that for men of sixty-five the average expectation of life is ten and a half years."—*Literary Digest.*

MUSHROOM SERUM FOR SNAKE-BITES.

Prof. Phesalin of Paris, has devised a new serum from the mushroom which he avers is competent to nullify the effects of venomous snake-bites. He maintains that his serum is a rather broad application of the principle *similia similibus curantur*—that is, a poison against a poison. He avers that snake poison produces a species of intoxication, and that fungi have similar effect, and that the intoxication caused by the mushroom serum counteracts the poison of the snake. That both the mushroom serum and the snake poison act through the nervous system upon the heart. In various experiments with animals bitten by snakes, even showing collapse, an injection of the serum immediately nullified the effects of the venom. That one of his employés happened to be bitten by a snake and that after a strong injection of the serum the advanced stage of snake intoxication disappeared rapidly. He claims also that immunity against snake poison can be established by a species of vaccination. He has already tried it upon dogs and found that at least one month after vaccination and that time completely ablates the effects of the mushroom serum.

PIANO PLAYING AS A CAUSE OF CHLOROSIS AND NEUROSIS.

It has remained for Dr. Waelzhold, of Paris, to show that excessive piano-playing ruins the health of young girls. Dr. Waelzhold maintains that "chlorosis and neurosis from which so many young suffer may be largely attributed to the abuse of the piano." Of course, he proves this by statistics and, as he claims, by clinical facts. Thus he takes one thousand young girls who began piano-playing before twelve years of age and one thousand who never learned the piano at all. Of the one thousand who learned the piano, six hundred suffered from nervous disorders, whilst only one hundred of the non-learners were affected. This assertion of Dr. Waelzhold is certainly startling enough, and we imagine must have its basis existing from other causes than mere fact of piano-playing. It is a just and sensible conclusion that if piano-playing were even remotely a pathologizing agent the world would have heard of it before. The intemperate exercise of the brain in any direction, even with the most natural of functions, would, we imagine, as readily produce a series of neuroses as piano-playing. No amount of attempted explanation can show that piano-playing can be any more nerve exhausting than many other forms of mental use. Dr. Joseph Collins, in speaking of Dr. Waelzhold's views, believes that when a man picks out one thousand young women from the various conservatories he starts in a realm in which tense conditions and ill health prevail. This is particularly the case in Europe. Continuing, he says:

"There is, doubtless, a serious condition of things in this regard among students of music, especially in the European centers, but to understand it one must consider the condition of those people and their habits and surroundings.

"Most of them are women of an emotional type, prone to nervous affections. And they are nearly all poor. They are obliged to use unimaginable economy. They have not enough food, or good enough food, to eat. Their clothes are insufficient and they are not kept properly warm. They are prone to introspection and morbid trains of thought, such as death, sex, the hereafter, social economy, occultism, and so on.

"Now, when you add over-exertion, under-exertion, under-nutrition and unhealthy contemplation to a naturally emotional temperament you are likely to get a few cases of blood depravity and nervous wreck which are not altogether chargeable to the piano.

"Dr. Waelzhold's secondary statement that out of one thousand girls who never touched a piano only one hundred suffered from the troubles in question is equally unconvincing, because in order to get one thousand girls who have never touched a piano it would, doubtless, be necessary to pick out women of unusually strong, unemotional or masculine types. These would probably be women of a more robust make-up, less prone to nervous disorders.

"I do not think that women in well-to-do families suffer from overpractice. They do not work hard enough. It is only under the spur of necessity that such overwork is performed. But I think it would be well, in any case, that parents should consult a physician regarding the amount of work which it is safe to put upon a young girl."

WERE THE ANCIENT EGYPTIANS CANNIBALS?

It would appear that archæological discovery has demonstrated that the ancient Egyptians, 3000 to 3500 B. C., were cannibals. Prof. W. Flinders Petrie, an Egyptologist and excavator of fame, has successfully brought to light this fact. In the recent unearthing there were found piles of ribs and flesh-scraped bones, showing where human teeth gnawed them. Professor Petrie found these evidences while excavating a group of old Mastaba tombs of 3500 B. C., in a cemetery near the village of Deshashab, some sixty miles south of Cairo. Professor Petrie, from extended investigation, concludes that the source of Egyptian cannibalism can be traced, and is probably due, to the Libyans who invaded and occupied Upper Egypt about 3000 to 3200 B. C. They habitually cut off the head and mutilated other parts of the body, and ate the same before burial.

EXCISION OF THE SUPERIOR CERVICAL GANGLION FOR GLAUCOMA.

In this latter part of the world's most wonderful century, the hope of to-day becomes the accomplishment of to-morrow. Procedures in surgery which only a decade ago were regarded as impossible are now matters of almost daily observation. Old theories, systems and methods of treatment give way to new facts. The pathology of yesterday is regarded as the error of to-day.

In the treatment of glaucoma little progress was made between the time that Von Graefe advocated iridectomy and the date when Jonnesco advocated his operation. This covers a period of forty years. Iridectomy, and the later operation of sclerotomy, must now give way, it would seem, to the excision of a portion of the great sympathetic nerve.

The pathology of glaucoma—the theoretic pathology—must be changed. The retention theory of Max Knies and Adolf Weber would seem strangely out of place in the light of recent investigations; and the nervous origin of glaucoma seems to be as good doctrine as any.

The recent excision of the right superior cervical ganglion in a case of unilateral glaucoma, by Drs. James Moores Ball and Edward C. Renaud, assisted by Dr. Willard Bartlett, all of St. Louis, would seem to be the first operation of its kind in America.

The patient was a female, deaf and dumb, aged fifty-six. She had had pain in and around the right eye for two months. Vision was limited to perception of light. Tension was plus three. Ophthalmoscope showed a cupped disc. In other words, this was a case of painful, absolute glaucoma—a condition for which removal of the eyeball is often demanded. The operator, however, decided to remove the superior cervical ganglion of the sympathetic. This was done. An immediate relief of pain and a reductionof tension; lachrymation of the right eye, and moisture in the right nasal cavity, with a slight ptosis, were the immediate effects of the operation. There was no change in pulse or respiration. The pupil, widely dilated before the operation, at the end of a week had contracted slightly. The operation was made at the Pius Hospital, in St. Louis, on May 15th, in the presence of eight physicians.

It was Jonnesco, of Bucharest, who first performed this operation—in August, 1897. Of late the most remarkable results have been reported by continental writers in the treatment of exophthalmic goiter and idiopathic epilepsy by removal of the cervical ganglia on both sides.

A history of the interesting case herein mentioned was presented to the St. Louis Academy of Medical and Surgical Sciences on May 23d, by Drs. Ball and Renaud. At the same meeting Dr. Bartlett gave a *résumé* of the literature of the subject.

CONDEMNATION OF THE ST. LOUIS MEDICAL SOCIETY.

The St. Louis Medical Society must go to Canosa! The Missouri State Medical Association has declared, by an overwhelming vote, that no more delegates will be received from the St. Louis Medical Society until after the latter shall have changed its constitution and expelled its unethical members. There are so many of this class that reformation will be a severe strain.

It is unfortunate for the many ethical members that they also suffer in this condemnation. The sins of the unjust are thus visited upon the innocent,

The Missouri State Medical Society took a decided stand against the admission of Dr. W. H. Mayfield, of sanitarium fame. We understand that another hospital proprietor would have received similar treatment if he had appeared at the meeting.

The clean members of the St. Louis profession owe a vote of thanks to the Kansas City Academy of Medicine and the Jackson County Medical Society for taking the initiative in an unpleasant work.

SALT FOR THE EARTH.

Salt in one way is as necessary as the air we breathe. An old German saying is "salt and bread makes the cheeks red," thus showing it necessary for the health. If there has ever been any dread that salt is not abundant enough, that certainly would be dispelled by reading a communication in the *Pharmaceutical Era*. Thus it says: "Say Salt Lake (Utah) is 100 miles long and has an average width of 27 miles; that gives an area of 2700 square miles. There are 27,878,400 square feet in a mile; so the lake has an area of 75,271,680,000 square feet. Take 20 feet as the average depth; then 20 times 76,271,680,000 will give us 1,505,433,900,000 cubic feet as the contents of the lake. Now, 16 2-3 per cent., or 1-6 of this, according to analysis of eminent chemists, is salt and sulphate of soda. That is: the lake contains 250,905,600,000 cubic feet of salt and sulphate of soda. Of this mass 1-8 is sulphate of soda and 7-8 common salt. A cubic foot of common salt weighs 80 pounds, a cubic foot of sulphate of soda 50 pounds. So we have as the contents in part of this unparalleled reservoir of wealth 1,568,160,000,000 pounds, or 784,080,000 tons of sulphate of soda; and 17,560,339,200,000 pounds, or 8,789,169,408 tons of salt. Compared with this vast liquid treasure-house of riches, the greatest bonanza mines of Utah or of the United States dwindle to beggars' penny boxes."

A RATHER TOO SUCCESSFUL RESULT.

One of our Southern confreres having read in the *British Medical Journal* that a Turkish physician, Dr. Menahem Hodura, had accomplished wonders in restoring hair to bald heads—that he not only restored hair, but restored the original color. He read that small bundles of hair stems cut with scissors and implanted in the incisions made with scarifier can take root and grow, forming in time long and viable hairs.

A perfectly bald patient applied to him for treatment. There was not a hirsutic twig in sight upon this man's head, and, unfortunately, our medical friend had none. But he was equal to the occasion. He had watched his colored man bobbing the tail of a mule, accordingly saved several bundles of hair. After forming these bundles in the proper length he scarified the scalp of his patient and implanted them in the furrows cut by the scarifier. They seemed to have unusual vigor and grew into a hirsutic ridge. When kept properly cut they certainly add to the looks, but if permitted to grow long they evince a disposition to grow tail-like; and should a fly alight on them, immediately they proceed to wag *en masse*, and effectively dislodge the winged irritant. He cannot wear this hair long, for if a fly light upon the face these bundles act in unison to such an extent as to dislodge what head-gear he has on. On the whole, the patient would be satisfied, if it was not for a wagging tendency of his scalp and tail-like hairs.

CLINICAL LECTURE.

SURGICAL CLINIC.[1]

By CHARLES MCBURNEY, M. D., of New York City,

Visiting Surgeon Roosevelt Hospital, Consulting Surgeon Presbyterian and St. Luke's Hospitals, Etc.

INGUINAL HERNIA.—This man was operated upon last Saturday for what appeared to be an ordinary inguinal hernia which had descended into the scrotum. For the last ten years he has worn a truss. He never has had a strangulation of the sac. However, when I did the operation I found I had a rare condition to deal with. The part of the intestine that came down into the sac of the hernia was the sigmoid flexure of the colon and it was bound down by peritoneum. The hernia took place between the folds of the mesentery and was not covered by peritoneum at all. So that it was impossible to ligate the sac at the level with the peritoneal surface, because if you did you would ligate the sigmoid flexure. So I reduced the sigmoid flexure and carried back with it a portion of the sac, and then closed the orifice by sutures. The patient has made an excellent recovery, without any disturbance of any kind, and will undoubtedly be up at the end of two more weeks and be satisfactorily cured.

APPENDICITIS.—This next case was a difficult one. I operated upon him at a favorable time, for he had only had two mild attacks of appendicitis, both occurring within a few weeks. I looked upon the opportunity of getting entirely well as being the principal reason for operating. Each attack lasted only three days, and they had all the characteristic signs. Tenderness existed at the time of operating. I did the operation, splitting the abdominal walls so as not to injure them. I found great difficulty in finding the appendix at all; I had difficulty in finding the caput coli, and I do not know just what the internal anatomy of the young man is. I have never done this operation before without being able to recognize the caput coli. I found the tip of the appendix away up in the groin, entirely covered by false membrane or folds of the peritoneum; I was able to dissect it out but with difficulty. The appendix was found to be a long one and had a stricture about its middle, and the conditions were present which favored an acute outbreak of acute appendicitis. The patient has made a good recovery, as you may see, and he will be out of bed in about a week's time and allowed to work without any restrictions. This is a case illustrating well the character of attacks of appendicitis that we often come across. A grave condition often exists without marked rise of temperature—lasting but two or three days—and we often find the appendix full of pus, even distended with pus sometimes, and, therefore, the patient is in a very dangerous condition. So many of these cases are constantly occurring, and they are so grievous to us that, unless the appendix be seen, I am less and less inclined to dismiss a case recovering from an attack as cured. My own preference is, whether after one or two attacks, to oper-

[1] Held at the Sym's Building, Roosevelt Hospital, April 8, 1899.

ate upon the patient before another attack comes on; for I look upon the operation as one of safety.

FOR DEFORMITY OF ANKLE; SYME'S AMPUTATION.—This young man is twenty-two years of age. When about two years of age he had spinal cord inflammation, which left him with very extensive paralysis of the right leg from the trunk to the toes. There exists some muscular control, although he is much crippled. The hip-joint is in good condition, although it is not perfect. At the knee we find that we have a very loose joint with some posterior displacement of the head of the tibia—outward rotation of the tibia and complete deflection—so that it is impossible, even with passive motion, to extend the limb. The patient has no power of extension at all. The leg is small and there is paralysis of the muscles which control the foot. There is a drop of the foot extending down to the toes; the limb is in an imperfect and useless condition. The question now arises how best to treat it. The patient now uses two crutches. If he can be given a limb that will bear his weight, he then can go without crutches. What I have concluded is best for him is this: I shall do a resection at the knee-joint so that there may be given him an ankylosis between the tibia and the femur. If we can give him ankylosis between these bones, of course, he will not have any motion at the knee.

This condition at the ankle-joint shows that something must be done; either a permanent appliance applied or an operation performed. One could resect the surface of the tibia and astragalus and produce ankylosis there. But the patient has paralysis to such an extent that, even after ankylosis had occurred, there would be a crowding of the toes. Taking all in all, the question resolves itself into whether an apparatus or an enormous operation would be the most feasible, and I have concluded that the wisest thing to do is to amputate and so give him a stump which will enable him to bear his weight upon it. Syme's amputation will be performed at the ankle-joint; this amputation will give the best results, because the character of the integument will permit the patient to stand upon the stump well, and it is the only amputation here which will permit the patient to engage in work right off. The resulting stump has the advantage, too, that it permits the application of an artificial foot to a much greater perfection than any other amputation that can be made here. I might do a Pyrogoff's amputation, which gives a longer limb. This amputation consists in the application of the sawn surface of the os calcis to the sawn surfaces of the bones of the leg; this will interfere with the application of an artificial limb serving the best purposes. Syme's amputation is performed as follows: Start the incision close to the fibular malleolus and carry it to a point on the same level of the opposite side, which is a little below the tibial malleolus. Cut clean through all tissues down to the bone. The anterior incision joins the two points just mentioned, at about an angle of forty-five degrees, to the long axis of the leg. In dissecting the posterior flap, avoid lacerating the soft parts and hug the os calcis closely, drawing away the flap with a retractor while dissecting. Any hemorrhage is controlled by an assistant compressing the femoral artery. Ligate bleeding vessels. Disarticulation is accomplished by opening the joint in front and dividing the lateral ligaments by entering the point of the knife between the sides of the astragalus and the malleoli. Next the

tibia and fibula should be cleared. Sawing the malleoli obliquely, instead of removing them together with a thin section of the articular surface of the tibia, gives a better stump and does away with the sharp edges that result when the latter procedure is used. Bleeding vessels being ligated, the parts flushed with saline solution, the pendulous flap is then brought up in place and interrupted sutures of retention—catgut—are used, followed by coaptation sutures of black silk. This amputation provides a beautiful drainage from the cup-shaped cavity left. Rubber dam is then inserted into the lower edges of the wound, over which is placed loose gauze, then gauze bandages.

FOR DEFORMITY OF KNEE; RESECTION.—Having done a Syme's amputation on the right ankle, I will now proceed to do a resection of the right knee. Of course, this second operation could have been postponed till another time, but I did not care to occupy his time further. An assistant again compresses the femoral artery. The leg is flexed upon the thigh, and an incision is begun at the posterior and upper border of one condyle, passing around to the same point on the opposite condyle, the lower portion of the curved incision corresponding to the insertion of the ligamentum patellæ. This incision should extend down to and include everything to the bone, including the ligamentum patellæ. The joint is opened and the patella is removed. Next, the lateral and the crucial ligaments are divided. Notice the position of the patella in this instance, being displaced outwards over the lower end of the external condyle; this will enable you to appreciate the amount of displacement of the tibia. Next, the femur is pushed forcibly forward, so as to protect the popliteal vessels, and the femur is sawn across, taking off as thin a slice as possible. The head of the tibia is then treated in the same manner. I now find that, when the bones are placed in apposition, there is too much tension posteriorly, so I shall correct this by taking off another very thin slice of the femur. We are trying to give him a straight, solid limb, and one upon which he can bear his weight. The bony surfaces are now united by passing through them absorbable sutures. It is desirable in all these cases not to disturb them any more than possible, and so absorbable sutures are used. Next, the parts are flushed with saline solution, and small pieces of rubber tissue are inserted into the angles of the wound. Loose gauze is applied, then a gauze bandage, and, lastly, plaster of Paris dressing, in the folds of which are placed several thin strips of wood. The dressing will not be removed for two weeks, unless certain indications arise. The stump can be dressed without disturbing the knee-dressings.

FOR RECURRENT APPENDICITIS.—This next patient is forty-two years of age. He gives a history that for the past seven or eight years he has suffered from attacks of abdominal cramps, with accompanying fever, chills, etc. The pain was referred to the right iliac fossa. Nine months ago he ceased to have attacks until two weeks ago, when there was a repetition of them, characterized by the same symptoms: abdominal cramps, fever, chills, and pain which rapidly localized itself in the right iliac fossa. At present there is no fever, the tenderness is partially localized, there is no tumor, and so I am curious to find out just what the lesion is. He has not advanced to a dangerous condition. One would expect, after so many attacks, a great deal of inflammatory changes, and, in conse-

quence, one usually finds great difficulty in removing the appendix. Yet, that does not always happen. Patients may have several attacks of appendicitis and yet the lesions may amount to almost nothing. I am going to attempt to remove the appendix by a small division of the muscular fibers, although the lesion may be such as requires an enlargement of the incision. In a working man it is far preferable to have as small an opening as possible, in order to lessen the danger of hernia following; if it is necessary to enlarge the opening it can be done. An incision is made over the site of the appendix through the skin and fascia, which exposes the aponeurosis of the external oblique, the fibers of which are divided in a direction down and forwards. The internal oblique and transversalis muscles are not cut, but separated with the handle of a scalpel. We are now down upon the peritoneum, which must be carefully cut. Here we have the large intestine and the caput coli. I now feel the appendix distinctly, which is a large body and closely adherent. I will now break up the adhesions and attempt to dislodge it. The appendix is very much altered, and it is very difficult to dislodge it from its attachments. The mesentery I will now tie off; it is very thick and very vascular, and so heavy that if but one ligature be applied it might give way; so I will apply several ligatures. Having separated the appendix from its mesentery, I will now pass around it a purse-string suture, cut it off, cauterize the end with the actual cautery, invert the stump, and so close it. The peritoneum is then sewed together, the split muscles allowed to fall to their normal positions and held there, the integument sewed by continuous sutures and the external wound dressed in the usual manner.

The Treatment of Vaso-Motor Coryza and Hay Fever.—In an article on the use of protargol in rhino-laryngological practice (*Archiv. fuer Laryngologie*, Vol. IX., 1), Dr. Arthur Alexander calls especial attention to the efficacy of this drug in the treatment of hay fever, particularly when contrasted with the inefficiency of other measures. In Professor Fraenkel's clinic in Berlin, with which the author is connected, it had lately been the custom to wash out the nasal cavities of subjects suffering from vaso-motor coryza (hay fever) with a 1:2000 solution of nitrate of silver, in order to reduce the sensibility of the nasal mucous membrane, which is the special aim of treatment in vaso-motor coryza. This treatment, however, proved to have the disadvantage of exciting profuse secretion and giving rise to neuralgic attacks in sensitive persons, even when used in solutions of 1:4000. Since replacing the nitrate of silver by means of protargol, however, these symptoms of irritation are no longer observed. It has been found that the application of a five per cent. solution with massage of the mucous membrane is very well tolerated. Under this treatment the watery secretion disappears after a few applications, although they must be continued in order to avoid recurrences. Dr. Alexander cites several cases in which, after other procedures had failed, a few protargol injections into the nose produced very favorable results. In cases of hay fever the treatment should be begun three to four weeks before the commencement of the season at which the disease is most prevalent.

ORIGINAL ARTICLES.

LET THE TERM "AMPUTATION" BE ABOLISHED ALTOGETHER IN ALL TRAUMATISMS IN= VOLVING THE EXTREMITIES OR THEIR APPENDAGES.

By THOMAS H. MANLEY, M. D., of New York City,

Visiting Surgeon to Harlem Hospital, New York.

IT WAS the writer's privilege, four years ago, at the annual meeting of the National Association of Railway Surgeons, in Chicago, and later in New York, to remind surgeons that the principles which governed their conduct in the past in the management of all extensive disorganizations of the extremities were now antiquated, and that the surgeon who hastened to dissunder a mangled limb or a part of a limb, until absolutely assured that all hope of preserving the limb, some part or appendage of it, was gone, committed a crime and should be held to severe account for his action.

I also maintained that in dealing with crushes of the foot or hand, Malgaigne's "keys" to the articulations and the whole category of classic amputations described by different authors should be totally disregarded, and that our guiding principle should be to spare and preserve under all circumstances in civil life.

It has been a source of great gratification to me to note that this position has received quite unanimous support from different sections of this country and abroad since; although we notice that the authors of modern textbooks still persist in filling in with cuts of those antiquated, vicious amputations.

At the recent meeting of the New York State Association of Railway Surgeons one phase of this subject was submitted by Dr. Henry Flood, of Elmira, who dealt chiefly with disorganizations of the foot, and raised the simple question why we should regard the management of the pedal extremity on any other lines than we do the hand? Unhappily we are still in a large measure the servile imitators of antiquated customs, and simply follow wherever we are led without doing a little thinking on our own account.

In the discussion which followed Dr. Flood's paper, Prof. John A. Wyeth took an advanced position and a radical departure from the time-trodden path of immediate amputations, and declared that "the whole foot" should be regarded as "one bone," and that where we severed any

part of it after an accident, it was better to do so sparingly, for the reason that should it be found later enough bone had not been removed to be properly covered in, a harmless secondary operation could be done with ease and safety.

Anesthetics, antisepsis, and improved asepsis have wrought a revolution in the management of traumatisms, plastic and osteoplastic surgery, and modern mechancial devices have enabled us to preserve very much of mangled limbs which formerly had to be sacrificed.

What, then, should be our course of procedure when called on to attend a limb, a finger or toe shattered or mangled?

Our first aim will be to determine if the parts are irretrievably destroyed; are dead and beyond all hope of resuscitation.

How will we determine this grave problem? Only in one way, viz., when the mechanical violence has been so great as to totally destroy the parts; when the main nerve trunks and arteries are completely torn through and the parts are connected to the living only by tendons, fascia, integument or ligament. In other words, when a mechanical or traumatic amputation has been accomplished. But even this is not enough in crushes of the fingers or toes of children or youths. But how about those cases in which bone is shattered, and the soft parts are extensively mutilated—quite a considerable proportion? Are there not in these cases such evidences as will unerringly lead the experienced surgeon to recognize at a glance that vitality has departed, and he is enabled to decide where he must sever the tissues?

In all truth it must be answered that there are no such signs. The limb may be cold, numb, and pulseless, and yet survive.

How, then, will we decide on what shall be our line of action in these dubious cases? Time only will decide the question; but we must not carelessly bundle up the limb in dirt and rags and wait; we must give nature a helping hand.

IN THE INTERIM.—1. Secure the most complete suppression of all hemorrhage by closing all the open vessels.

2. Thoroughly cleanse.

3. Place limb in position of relaxation; and if finger or toe is crushed, replace parts.

4. Embalm the parts by sterilized elastic dressings.

5. Maintain artificial heat, not to the limb alone, but to the whole body until reaction is re-established.

It is of vital importance now that the patient be carefully looked after, as well as his limb.

He must be stimulated and the flagging forces of life supported. Here alcohol is the monarch of stimulants for narcotics in various forms and in graduated quantities.

Twenty-four to seventy-two hours are long enough to wait.

CONSECUTIVE THERAPY.—Having removed the dressings, we will now find, *first*, in diseased cases, dry mummification, with the line of demarkation formed; *second*, more or less gangrene, but the continuity of the circulation restored; the parts beyond have preserved their vitality; *third*, beyond a localized ulceration at point of injury, vitality is everywhere restored.

The above three degrees of damage, so destructive, suggest the proper therapy:

First.—Severance of bone and subcutaneous tissue above line of demarkation.

Second.—Various osteoplastic procedures, grafting, etc.

Third.—Practically the same treatment as for a compound comminuted fracture.

RESULTS.—By adopting this course we give the classic amputations, the showy, swift-slashing, "playing to the house" the go-by. The wound requires, perchance, months instead of weeks in healing, but we are rewarded by a *restitutio ad integram;* a limb or part of a limb has been spared.

ON FLAPS.—The shapely flap with the handsome amputation should both be consigned to the limbo of oblivion.

Nothing is calculated to do greater mischief in the life-work of the general practitioner than the impression left in his student days that he must shape his flaps after the same rule that a tailor would the segments of a garment. As student he was taught transfixed flaps, the bisected, the oval, the circular, the apron, the Teale, the Lispanc, etc., while the stern truths of practical surgery teach that in every instance our sole aim is to only provide ample covering over the projecting bone surfaces. Many a limb, or important appendage of it, or a joint, is prematurely sacrificed because at first sight it seemed impossible that enough integument or scar tissue could be forthcoming to cover it in. But it is most remarkable how in many of these cases the slack integument is gathered up and spread out over the nude osseous surfaces.

CONCLUSIONS.—Modern surgical science and art have so revolutionized the therapy of crushed members that the term "amputation" should be expunged from all text-books on surgery and its practice severely interdicted. The word implies severance *en bloc*—something never called for under these circumstances. The term excision or resection should be substituted for it.

Effective embalming of the shattered limb permits of safe delay and the preservation of every possible portion of tissue.

Reaction established, now in many cases the surgeon should turn to utilize the important auxiliary art of osteoplasty, dissossement, ebonation, bone-grafting, tissue-sliding, etc.

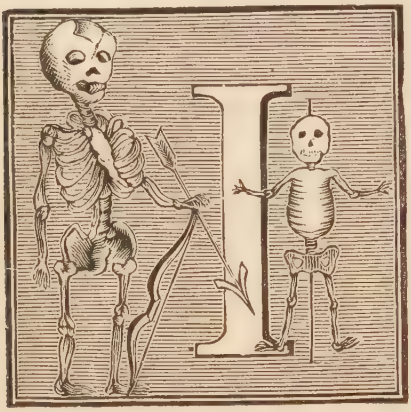
The above very brief and inadequate notes on such an important subject apply to traumatisms chiefly, though they are not without a range of considerable limit in all pathological conditions of a non-malignant character.

It is obvious in wars, in a pestilential country, they have no application at all under usual conditions, as in field hospitals near the line of action.

Callous Ulcers.—In the treatment of callous ulcers a blister applied over the thickened tissues around the ulcer is one of the most rapid methods by which the disappearance of the exuded materials can be brought about.—DR. C. W. CHEYNE.

TENT LIFE FOR INVALIDS IN COLORADO.

By CHARLES FOX GARDINER, M. D., Colorado Springs, Colorado,
President El Paso County Medical Society, Member American Climatological Association and of American Medical Association, Etc.



AM writing this letter in one of the mountain parks of Colorado, some 7500 feet above the sea level. My tent is pitched in a pine grove, in the open spaces of which the brilliant Colorado sunlight is pouring a flood of warm, golden light; and although the temperature is only 80° F. beside me in the shade, the air, for all that, is crisp and refreshing, the gentle breeze that reaches me occasionally being almost cool, with just a suspicion in it of having passed over the snowy range beyond, and of gathering pine balsam along the way. I have been wondering, as I sit here enjoying the restful, quiet fresh air and the beautiful prospect, as I have often wondered before, many times, why it is that, as a class, pulmonary invalids so seldom utilize this out-of-door tent-life, so conducive, not only to physical health, but to mental rest as well. It seems to me all human experience and scientific research alike show us the utter worthlessness of all and every means of curing consumption without this great and all-powerful factor, fresh outdoor air. And apart from the careful and scientific use of outdoor air as used by many sanatoriums in Europe,[1] and in this country,[2] we have only to turn to the crushing evidence presented in its favor by many facts now known to us in the life history of men and animals. Pulmonary tuberculosis is almost exclusively a disease of the domestic animal, including man himself; and when animals are deprived of a certain amount of air and exercise, like our domestic cattle, then tuberculosis begins. And when man leaves the plow for the shuttle, when agriculture gives way to manufacture, with its accompanying bad air, crowding, and the like, then, and not till then, does consumption advance with giant strides to destroy those who are not the "fittest," or who do not breathe enough outdoor air.[3, 4, 5] Dr. Trudeau has[6] demonstrated this in animals. Rabbits were made tubercular. Half the number were confined[2] half were practically turned loose. The rabbits that were confined died of tuberculosis, or were hopelessly diseased when killed, while those that lived their natural lives, unconfined, in the open air, recovered. The same influence regarding the development of consumption by confinement can be seen among our North American Indians. In a letter written by George F. Pope, agency physician, Greenwood, S. D., and published in an article by H. H. Spiers, October 1, 1898, in Cincinnati *Lancet-Clinic*, is the following[7] (also[1]):

"I have attended the Indians, both here among the Sioux and in Idaho among the Bannocks. I have known many agency physicians, and have talked with them. All agree that the older Indians say they did not have consumption among them when they lived in the teepees and in

the open air. But as civilization advanced among them, the government has constructed log cabins and small frame houses for them, and they have given up the teepee, except for a short time in the hottest weather in summer. Now we have consumption, the most prevalent disease. More than half the deaths are from it."

Many other facts could be cited as showing very clearly overwhelming proof that, both in men and animals, consumption or tuberculosis is a direct result of being deprived of air, and that a return to the semi-savage life of our ancestors, with its life in the open air, not only will prevent the development of consumption, but will also, in many cases, cure the disease when such a life or environment is utilized with judgment and care.

That such a remedy can be at once used in every case or in any climate, summer or winter, it is needless to say is impossible. A delicate invalid, especially one with impaired vitality from pulmonary disease, cannot, with any degree of safety, be taken from the enervating and often luxurious surroundings of a civilized home and placed suddenly amid the hardships and necessary exposures of life entirely in the open air; such treatment would often result in pneumonia. Nature's cures are severe, and have always to be used with at least the same caution that one would administer some powerful drug. Climate is a big factor in the use of open air cure. I do not say the climate of Colorado is the best and only climate for such treatment of pulmonary diseases, but I do say that there is strong evidence to show that the climatic conditions all over our dry, elevated plateau in Colorado, New Mexico and Arizona offer, some of them in winter, some in summer, advantages that very few countries possess in the whole world. The altitude or elevation above sea level, such as exists in these States, generally expands the chest,[8] dilates the air cells of the lungs, thickens the blood, rendering it more active as a destroyer of germ life, while the sunshine, the purity of the air and sand soil, with almost entire absence of humidity, tend to favor nutrition to a high degree,[9] and make it far more possible to live out-doors with comfort and safety than in less favored sections of the country, and even under more or less unfavorable conditions, such as living in ill-ventilated rooms part of the time, etc. The percentage of recovery from consumption in its first stages in Colorado is very high. That this curative agent in this climate is due to the air alone, or very nearly so, is quite evident; and that it is the open air, and not indoor air that cures, is also a well-established fact. And it follows, of course, that if the open air was wisely used and taken advantage of as it should be in this climate, the cases cured of consumption would be proportionately increased.

There is no doubt in my mind that the life of the average pulmonary invalid in western health resorts is not an ideal one, at least from a strictly scientific point of view, or a common-sense standpoint. The very comforts of civilization, the social life, warm rooms, late hours, dining out, and the thousand and one temptations that are so seductive to a homeless wanderer in search of health, are, if indulged in unwisely, too often destructive and not constructive, as such a method of life, after all, represents precisely the environment in which the disease first developed; and what invalids must have is a complete change, to stimulate cell nutrition to the utmost; habits, habitations, clothes, food, climate, and even

thoughts or mental labor, all need a stirring up and readjusting to fit the body for the new and healthy action that is to dirve out disease. The intelligent patient coming to the West in search of health tries to avoid these perils of civilization, and by the advice of his physician, or upon his own judgment, seeks to obtain the all-powerful open air treatment by living on a ranch. The prevailing idea which seems to exist is that it is the beau ideal of an outdoor existence, with abundance of milk, eggs, and good beef to eat, open fire-places to sit by, and a broncho to ride over the rolling prairie, and with it all a spice of romance pervading everything to make interest and a quick return to rugged health as a final result. There may be ranches where this ideal perfection is a practical reality, but I, for one, do not know of them. I have been over Colorado and Wyoming on horseback, and at one time practiced medicine for several years (four or five) at a place some one hundred and fifty miles away from any railroad, in a cattle country, among ranches, and my experience has been that it is all a well man can do to digest the average ranch food, and that most ranches are no place for an invalid. The principal diet, as far as my rather extended observation goes, was that three times a day, year in and year out, the average menu was salt pork cooked in a sea of lard, soggy potatoes, baking powder biscuits, washed down with black, reboiled coffee, all taken with great haste and in absolute silence. Anything better or more varied was always a surprise to me; and it was, indeed, a noteworthy exception when at a ranch I had properly prepared meat or vegetables. No fresh air can at all compensate for malnutrition engendered by a faulty preparation of food, and the ranch-cured cases, with few exceptions, are, in my experience, cases of survivals of the fittest, who had most unusual digestive powers; and such cases represent but a small proportion of those that seek such a life for lung troubles. Then, ranches are built with but little regard for either the picturesque or sanitary surroundings, and are only too often so situated as to be in barren and desolate parts of the country, and unhealthy from defects in local drainage or soil, with all the trees cut off near by for wood, and the only alternative to sit out in a blinding sunshine or indoors with the ever-present flies. Such ranching, with its discomforts, soon produces in a sick "tenderfoot" dyspepsia and condensed homesickness, alike fatal to improvement. If an individual decides not to chance a ranch life, and to live in a town or city of Colorado, and is, we will say, sensible and determined to live to be cured, in accordance with general hygienic rules and good common sense, he will, if possible, select a quiet boarding-house, with some sunny piazza where he can spend most of the day. Such patients will, it is true, religiously spend what is indeed to them all day out-of-doors, but it is, after all, accomplished with some effort. They are conscious all the time of a duty in doing so, and probably restlessly count the hours when they can go indoors. The light hurts their eyes, they are tired, and if they lie down people look at them, etc.; and after all is said, how much time do such patients have absolutely in the open air? I think it is a fair statement to say, about on the average, six to six and one-half hours—really less than twenty-five per cent. of the twenty-four hours; and yet all their effort, travel and expense has been taken for open air, for that is the only cure, and they are paid twenty-five per cent. only out of the one hundred

per cent. The average person seems to think that practically there is very little difference between the air in an average room and out-of-doors, but the difference is a great one. I have made some regular scientific experiments in this direction,[10] but a comparatively simple one can be made by any one. I have taken a piece of fresh meat, entirely uncovered, in hot weather, and suspending it on the top of a pole twenty feet high, have kept it fresh and pure for several weeks, while the other half of the meat, placed in a room with doors and windows open and protected by fly-screens, became tainted in a few hours. The analogy between this meat test and a lung which is impaired needs no emphasis, especially when it is remembered that in twenty-four hours some three hundred and fifty cubic feet of air is taken into the lungs. The outdoor air in Colorado has some subtle quality in tending to avert putrefactive changes that indoor air does nor possess. To arrive at the practical point, however, is not easy.

It seems necessary to derive the best effects from the outdoor air cure to have the dosage as heroic as possible. If at all practical, day and night also should be utilized by the pulmonary invalid, but this must be done without undue exposure or overexertion, and with good food properly cooked to nourish him. Now, my plan is that a properly constructed tent fulfills these necessary conditions in an ideal way. I do not, however, advocate the tent in general use, at least in the West; such a tent-life as often advised is worse than useless. First, they are generally low "A" tents, made of thin duck, with no floor, pitched often in the open, without shade and with no adequate system of ventilation when closed at night. The consequence is that such a tent is hot in the sun, badly ventilated. When there is rain the thin duck, even with a fly, allows a mist to enter through the damp duck. Every footstep brings up a cloud of dust, even with rugs. A tent, such as I am about to describe, has to be properly built, properly pitched, and properly conducted, with attention to details, to insure success. The tent I advise is the result of considerable evolution in tent-building; and after having lived in it both in snow-storms and the heat of summer, I can state positively its practical uses. The tent is made of twelve-ounce duck (very thick duck, this is), eighteen feet high and quite circular; diameter sixteen feet on floor; center pole has pulleys worked from inside to regulate tension in damp weather. At the top is an opening ten inches in diameter for ventilation. The floor is in eight sections fitting together, around the edges of which the tent wall is fastened. The wall is five feet six inches high. In wet weather the great pitch, or inclination, of tent roof, and the thickness of the duck, with height from the floor, combines to prevent any dampness being felt, even in "driving" rain-storms, while the floor, some eight inches from the ground, allows perfect ventilation and dryness without ditching, if on a ground with slight natural drainage. A wood stove, with pipe passing through a tin shield in the wall, assures all the warmth necessary. I have frequently brought up the temperature from freezing to 75° F. in fifteen minutes by lighting a fire. Such a tent will not need an extra fly if pitched where there is some shade, preferably that of pine trees, not too close or dense. In warm weather a dark shade, made of blue duck, can be suspended outside to-

ward the sun, and, if necessary, the lower edge of wall can be raised two or more feet from platform all around. This, with the opening in the top, insures a constant interchange of air, the air tending to collect overhead being displaced by cooler air from below, and all warm air, smoke, etc., being carried out at the top of the tent, as I have proved by direct experiment. No matter how hot a fire or how closely the tent is closed below, there is a constant and gradual interchange of air far in excess of any room ventilation. In some hunting trips I have had in the tent sixteen men, all smoking, a big fire in the stove and one smoky lamp, yet even under such a severe test the air has been so rapidly exchanged as to be practically pure. I have my tent furnished with a comfortable bed, rugs, chairs, etc., so as to make it as nearly like a home as possible. The bed, in particular, should be warmly equipped with eiderdown quilts, extra thick mattress, etc. If this tent is pitched near a convenient and good food supply, which is entirely practical, all the requisites are present for the ideal open air life demanded by the pulmonary invalid. He is then under treatment all the time, day and night. If he feels tired he can go to bed or lie down and rest in seclusion, and yet the fresh air is constant. If he is cold, he can be in a temperature of 80° if desired; but it is fresh, warm air, antiseptic and pure, he is inhaling, and not warmed-over air, filled with furnace dust or gases to irritate the delicate lungs.[12]

This is not a theory with me. I have directly experimented for years, and have lived in the open air, and in Indian teepees, and in a tent such as I describe for months at a time; and there is no practical objection and many reasons why an invalid can be benefited by tent-life in a suitable climate. Naturally, all cases of consumption are not suitable ones; some are too ill, others have home ties, and many have to be brought to such a life with care and caution; but for very many young men in first stages of consumption it will prove a life-saver, if properly used and not abused. The tent-life is a complete change, mentally and physically. One has only to note the benefit conferred and physical changes induced by ordinary camping, even under unfavorable conditions of climate and food, as in the north woods. To the average civilized man such a trip means a gain in weight, and the general experience is that appetite is increased, nutrition is stimulated, "nerves" are rested, and that even in bad weather a cold is seldom contracted in spite of exposure that, during an indoor life, would be apt to produce one. The facts I wish to emphasize are that in a tent-life in Colorado or other States having similar climatic advantages, we have a curative force of great advantage, depending on fresh air. That such a life, in certain cases and under certain conditions, is by far the best one for the invalid to live, and is possible for him at least nine months in a year; that the main point in treating consumption to *cure* it is a constant supply or dose of outdoor air. We have in the last decade seen cures for consumption come and go, without number; scientific advance has been pushed actively, especially in the study of tuberculosis. Yet to-day we stand very much on the same ground in curing consumption as did the world before the Christian era; and open air to-day, as then, is the only real curative agent that has stood the test of time.[13]

REFERENCES.

[1] "Hospitals and Sanatoria for Consumption Abroad." by Edward O. Otis, M. D. Boston *Medical and Surgical Journal*, March 24 and April 7, 1898. Reprint, pp. 10, 16, 20, 22.

[2] "The Treatment of Phthisis in Sanatoria or in Our Homes," by Vincent Y. Bowdieth, M. D. Reprint.
[3] "Phthisiology," Evans; p. 243. Also, "The Danger of Tubercular Infection and Its Partial Cure by Climatic Influences." *American Journal of the Medical Sciences*, February, 1898.
[4] "Text-Book of Hygiene," Rohe; p. 28.
[5] "Pulmonary Tuberculosis." Boston *Medical and Surgical Journal*, October 5 and 12, 1898. Reprint, p. 5.
[6] "Environment in Its Relation to the Progress of Bacterial Invasion in Tuberculosis." *American Journal of the Medical Sciences*, July, 1897.
[7] "Trans. Colo. State Med. Society," p. 321, 1894. "Tuberculosis Among the Indians," by Dr. H. R. Bull.
[8] Gardiner: *Amer. Journal Med. Sciences*, February, 1898.
[9] Letter to New York *Sun*, April, 1897; Gardiner.
[10] Gardiner: *Am. Journal Med. Sciences.*
[11] Dalton's "Physiology," p. 280.
[12] "Infected Atmosphere," by Guy Hinsdale, M. D. *Medical News*, May 2, 1896.
[13] Arytæus, Celsus: "Treatment of Consumption," p. 4. Harris & Beal.

PERITONEAL ADHESIONS.

By BYRON ROBINSON, B. S., M. D., of Chicago,

Professor in the Chicago Post-Graduate School of Gynecology and Abdominal Surgery; Professor of Gynecology and Abdominal Surgery in the Harvey and Illinois Medical Colleges.

PERITONEAL adhesions produce one-third of all intestinal obstructions. In examining a subject with obstruction of the tractus intestinalis four factors should be considered, viz.: (*a*) Peritonitis. (*b*) Strangulated hernia. (*c*) Mesenteric gland disease. (*d*) Ulceration of the mucosa of the intestinal tract.

The ultimate end of the above four factors is peritoneal bands or adhesions which aid in obstruction of the digestive tract. Practically, there is the fibrous peritonitis, the fibrinous peritonitis, and the serous peritonitis.

In peritonitis a fibrous exudate appears on the surface of the endothelia wherever two surfaces come in contact; they adhere by means of this sticky exudate. The adhesions may be an isolated point or over extensive areas. Organization of the peritoneal exudates rapidly occur, forming blood and lymph vessels, nerves and connective tissue, all covered by endothelia. However, a very small portion of the exudate organizes; the majority becomes absorbed.

From numerous experiments on dogs I found nearly all the plastic exudate absorbed and chiefly fibrous bands remaining six weeks after the operation. Subsequent to six weeks after peritonitis many of the fibrous peritoneal bands gradually disappear at the points of greatest tension and least nourishment—*i. e.*, in the middle. A year after peritonitis relatively few bands remain. In secondary laparotomies in the practice of Dr. Lucy Waite and my own, three to four weeks will almost clear out a pelvic or other peritoneal region when the offending organ is removed. The peritoneal bands are covered by endothelia. Motion of the abdominal viscera appear to influence their absorption chiefly. The more mobile viscera, as the enteron, have the least peritoneal bands.

During the progress of peritonitis the intestines are still from paralysis. Distention becomes a marked feature of the colon and enteron in peritonitis, and hence segments of the tractus intestinalis which, normally, are distant from each other are brought in contact and adhere, whence arises the peritoneal bands connecting odd and distant organs, as the sigmoid flexure to the stomach, the transverse colon to the ova ducts, or the uterus to the transverse colon. A single band of omentum may pass to a hernial orifice. As the viscera slowly return to their normal caliber and location the bands gradually form and elongate through peristalsis. Bands principally assume a membranous character; contraction and motion produces round ones. Peritoneal exudates on non-mobile viscera may produce contraction and much deformity—*e. g.*, colon, mesentery and spleen.

Any variety of peritonitis from which a patient recovers may lead to peritoneal bands, and is always a local peritonitis. All patients afflicted by general peritonitis die. Peritonitis saves life—infection kills. The peritoneum is a lymph sac, and its inflammatory processes are lymphangitis. The reason lymphangitis spreads so widely and rapidly in the peritoneum is because the lymph vessels in its walls are uninterrupted and continuous over large areas and not obstructed by any natural barrier. Tubercular peritonitis leads, finally, to death through the lymphatics, with vast remnants of peritoneal adhesions. Strangulated hernia is very apt to result in peritoneal bands, whether reduced by taxis or surgery. The peritonitis about the strangulated loop may lead to peritoneal adhesions which may produce kinking in the loop of the enteron and colon. The reduced loop may adhere to the abdominal wall, to the enteron or any viscera, and by traction produce obstruction. The peritoneal adhesions about the loop may lead to contraction and obstruction. Stricture may follow the reduced loop.

Mesenteric gland disease leads frequently to peritonitis. The consequent local peritonitis may afford attachment to Meckel's diverticulum, appendicæ epiploicæ, loops of enteron or sigmoid. It may cause acute bending in the enteron, shrinking of the mesenteron, or even an aperture in the mesenteron.

The results of peritonitis are peritoneal bands. (*a*) Peritoneal bands may cause intestinal obstruction by a segment of bowel becoming strangulated by a band or through aperture. (*b*) By isolated peritoneal adhesions. (*c*) By Meckel's diverticulum and fixed appendicæ epiploicæ, omental cords, and acute kinking of the enteron loops. (*d*) Peritoneal bands may fix viscera. (*e*) They check peristalsis. (*f*) They cause pain by checking visceral function. Much of the immediate and remote pain subsequent to laparotomy is due to peritonitis and resultant peritoneal adhesions.

The Allen-Hall Drug and Surgical Supply Company.—This firm has located at 710 Pine street, St. Louis, and is doing a wholesale business in drugs and chemicals, surgical instruments and appliances, hospital furniture, etc. The *physicians supply* feature of the business, as inaugurated by the genial Mr. Allen, will be continued. We advise our readers to favor this firm with their patronage.

DISLOCATION OF THE SPINE, WITH REPORT OF TWO CASES.[1]

By J. HERBERT AUSTIN, M. D., M. R. C. S. (England), Kansas City, Mo.

OUR subject for this evening, "Fracture-Dislocation of the Spine," is one that especially interests the surgeon.

But, invariably in these cases, symptoms arise which make clinical pictures that are of the greatest value and interest to any earnest student, no matter to what field of work he may be giving his attention chiefly.

This, possibly, is the most fearful accident that can happen to a human being. The patient's condition after such an accident is truly a sad and distressing one, with the future anything other than bright and hopeful.

The histories of the two cases that it has been my fortune or misfortune to have had under my observation were, briefly, as follows:

CASE 1.—W. H. B. Injured March 11, 1898, while driving under an archway. Examination disclosed marked deformity over eleventh and twelfth dorsal vertebræ; paraplegia was complete; no blood in urine. Extension failed to relieve symptoms; bed-sores were very troublesome. Several weeks later, after removal to hospital, a laminectomy was done; patient regained sensation and motion partially. In about two weeks, however, a dysentery developed which could not be checked, or at least was not. About three weeks later patient died. There was extraordinary emaciation, but this was to be expected after the four months or more that the patient lingered after the accident.

The *post-mortem* revealed a healing operation wound and the cord firm and apparently normal to touch.

CASE 2.—J. S. G. On March 14, 1899, was struck by a street car. I was on the car and witnessed the fearful accident. Examination at patient's home revealed dislocation of left hip. This was reduced at once without anæsthetics. It was easy to reduce the dislocation, because the muscles of the limb were paralyzed. There were numerous scalp wounds.

The left knee was severely disintegrated internally. It could be moved in almost any direction easily, but the surface structures were not torn through.

There was slight deformity over eighth and ninth dorsal vertebræ; great pain in this locality constantly for days, then for a time there would be none; paraplegia was complete except one zone of hyperæsthesia high up, which later vanished. Blood was very abundant in the urine the first time it was withdrawn. In about ten days pus appeared and was present to end of the case.

[1] Read before the St. Louis Academy of Medical and Surgical Sciences, April, 1899.

On account of great swelling and tenderness in left renal region, blood in urine, etc., we believed the left kidney was ruptured.

Patient lingered along for twenty-six days and died April 8, 1899. For ten days or more before death the temperature ranged between 101° and 104° constantly; respiration between 30 and 45; pulse varied between 110 and 160. Had pneumonia in right lung for last ten days; involved almost entire lung.

Patient had fæcal incontinence; developed a mild diarrhœa during last two weeks. No *post-mortem* was permitted. Only one rather small bed-sore developed during the case.

In considering the causes of such accidents we find that they may result from either direct or indirect violence. When due to direct violence the spine is bent backwards. This tears apart structures forming the anterior part of the spinal column, and crushes together those forming the posterior portion.

In cases due to indirect violence, such as a great weight falling on the head or shoulders, or the head being caught while passing under an arch, the opposite state of tearing and crushing will exist.

According to Treves, in over seventy per cent. of such accidents to the spine we have to deal with fracture-dislocation. The remaining thirty per cent. he claims is nearly equally divided between pure fracture and pure dislocation.

What concerns us chiefly, however, is the condition of the spinal cord after the accident. The symptoms are both local and general or constitutional, and vary according to the site of the lesion in the back. Locally, we usually have severe pain, especially on pressure or attempt at movement. We may have crepitus.

From blood extravasation there is often great tenderness and swelling. In some cases there is great deformity present, in others practically none exists. This is especially true of such injuries in the dorsal region of the spine.

General symptoms depend entirely on the condition of the spinal cord. If it is intact, there are none. In considering the general symptoms the spinal column is usually divided into five separate regions. The summit of the spine includes first three cervical vertebræ.

Fracture-dislocation with crushing of the cord in this region is invariably instantly fatal, for the reason that it is above the origin—the phrenic nerves. In cases where displacement and, therefore, bony pressure on cord is slight, we have complete paralysis below the cervical lesion and rapidly increasing dyspnœa and asphyxiation. In other cases where pressure is due to hemorrhage, the paralysis is often incomplete; and a symmetrical myelitis occurs later, if patient lives long enough for it to develop.

There may or may not be spinal meningitis. The cervico-dorsal region extends from the third cervical to second dorsal vertebræ. Often there is not much displacement of the parts. The cord, however, is usually completely destroyed, and all the body below the lesion completely paralyzed. If above second dorsal vertebra, the upper extremity is included. If higher still, there is often a severe hiccough and vomiting. Through the sympathetic the pupil may be dilated and vision affected.

Sensation is retained on front of chest in integument as low as the nipple, because the sternal and clavicular branches of the superficial cervical plexus are distributed there. There is true fæcal and urinary incontinence. The chief danger to the patient is failure of the respiration. It is quite true that the phrenics are intact and that the diaphragm is, therefore, acting normally.

The external respiratory nerve of Bell, which arises just below the phrenic, keeps the serratus magnus acting. This is an inspiratory muscle. It is because of these nerves, the phrenic and nerve of Bell, that respiration is carried on at all. The intercostal and abdominal muscles are paralyzed, therefore there is little expelling power during expiration. As a result, mucus accumulates readily, is not expectorated, and the blood becomes poorly oxygenated.

The dorsal region extends from the second to the tenth dorsal vertebræ. After an accident in this region there is paralysis of the thorax below the lesion; also of the abdominal walls and lower extremities. Inspiration is accomplished with force, because the upper intercostals act; but expiration is poorly carried out. Bed-sores form early, and are very hard, indeed, to care for. Priapism occurs if lesion is above sixth dorsal. Fæcal incontinence and dribbling away of urine is seen.

The dorsi-lumbar region includes the last two dorsal and first two lumbar vertebræ. In this region the spinal cord is surrounded by the tough, strong roots and cords of the cauda equina. These structures protect the cord proper against injury. In many instances the cord is only slightly injured and the paraplegia is only partial. Loss of motor power follows, but sensation is retained. Whenever sensation is lost there is invariably loss of motor power also.

By the lumbar region is meant the region below the second lumbar vertebra. A lesion in this region is below the spinal cord proper, and involves merely the cauda equina. Paraplegia is often absent. The patient may not be able to keep his body erect or walk, or at best very lamely, in a badly bent position.

But that same patient, lying on his back, may be able to move his lower limbs naturally, and also have normal sensation.

Of course, if the spine is fractured in the lumbar region so that the fragments are separated widely and the cauda equina torn from the cord, then instant and permanent paraplegia will ensue.

Now let us consider the prognosis of fracture-dislocation of the spine. It is truly a fearful injury. The great majority of cases end fatally—it may be instantly, after a few hours, days, weeks or, more rarely, weary months. The older the patient is, the less is the chance of life. Above phrenic, if the cord is divided, death occurs instantly—usually in a few hours in any case.

In the cervico-dorsal region ascending inflammatory changes often prove fatal in from a week to ten days.

In the dorsal region death occurs in most cases in from two to four weeks. As causes may be given acute bed-sores, cystitis, and diseased kidneys.

The most hopeful cases are those involving the dorsi-lumbar and lumbar regions, especially the latter.

These patients often recover entirely, except whatever deformity may be left. Even in these cases, if recovery or very marked improvement has not occurred in six months, little may be expected. Of course, cases are on record where patients lived wearily for some years.

Now we may consider the management or treatment of fracture-dislocation of the spine.

Immediately after the accident the patient must be handled very gently. Have him lifted on a board or shutter, and in every way try to prevent movement at site of lesion, and so protect the cord from further injury.

Fight collapse by heat and stimulants. Use sand-bags to steady head if fracture involves cervical region. Get patient to bed quietly and comfortably, as speedily as possible. Use a water-bed, if at all possible; it is by far the best. A fracture-bed makes a good substitute; or air cushions answer fairly in the absence of either of the foregoing. If only partial paralysis exists, attempts to reduce the deformity should at once be made, by extension and manipulation. Great care must be exercised, however. Avoid anæsthetics, if possible. Great care must be taken to draw off the urine three or four times daily, and oftener, if necessary. Wash out the bladder with an antiseptic solution if cystitis occurs. Have a bed-pan to receive discharges from the bowel, and in every way try and prevent urine or fæcal matter from coming in contact with the patient's back.

This will go a long way, indeed, toward preventing bed-sores.

The skin should be gently bathed with alcohol to gradually harden it, so as to resist pressure. A very useful measure is to repeatedly paint the parts with collodion.

Other symptoms must be treated as they may arise, every case being a law unto itself.

If reasonable union has occurred, later on, in some cases, a leather or plaster of Paris jacket does great good. Now let us consider the question of operation—laminectomy. We must all agree that this operation is, at best, a very grave and serious one—one that shocks the patient severely in any case. The object is to relieve pressure on the cord by elevating or removing any fragment or spicula of bone that may be causing pressure on the cord. There is no use operating where internal organs are ruptured, or in a case where, from the severe deformity and profound instantaneous, continuous paraplegia, it is evident that the cord has been divided. I do not consider it good surgery to attempt to suture the cord or cauda equina when severed.

In the cervical region, life can be saved only by prompt reduction of the dislocation. Laminectomy, therefore, is indicated in this region at once if reduction cannot be accomplished without. I have seen brilliant results follow operation in this region. Laminectomy elsewhere, as a rule, does not accomplish much. There are several reasons why this is the case. One is that by operating a simple has been turned into a compound fracture. The column is often severely weakened by the removal of the posterior portions of the vertebræ.

Often on removing the laminæ, we find that parts of the bodies of vertebræ must be removed in order to relieve pressure. This has been done but rarely, and I know of no case cured by it.

Laminectomy sounds very pretty, and seems the correct thing to do, theoretically. But in many cases, practically, the operation is not indicated. Every case is a law unto itself, and we must govern ourselves accordingly.

HISTORICAL SKETCH.

SCHOLASTICS AND MYSTICS.

THE thirteenth century was one of the great periods in human history. It has been spoken of as "the trumpet call which summoned the middle ages into the modern world." Important changes took place in theology, philosophy and science. The impulse to advancement in science came largely from the Arabs, and especially from the study of the writings of Aristotle. It was a period of "wonderful" doctors. Through all the ages there have been individuals who either have claimed to possess, or to whom there has been attributed, a miraculous power over disease. Probably at no time in history were there more exaggerated instances of this belief than during the middle ages.

ALBERTUS MAGNUS, 1193-1280.

Albertus Magnus was one of those fortunate individuals who won the encomiums of both physicians and theologians. He was neither more or

Albertus Magnus.

less learned than the schoolmen of his day. At a time when Peter the Lombard described the earth as a square table and the heavens as a solid

dome, Albertus Magnus discussed with great zeal the question whether Eve was made out of a whole rib or only from the bony portion. Albertus wrote voluminously, if not intelligently, upon chemistry, botany, physiology, astronomy, magnetism, astrology and kindred topics. A treatise, *De Secretis Mulierum*, which bears his name, is said to have been written by one of his pupils.

Liber ſecretorum Alberti magni de virtutibus herbarum: z alī
malium quorundam. Eiuſdemq; liber de mirabilibus mundi:
z etiam de quibuſdam effectibus cauſatis a quibuſdam anima
libus zc.

Title-page of "De Secretis Mulierum" of Albertus Magnus, 1503.

ARNOLD OF VILLANOVA, 1235-1312.

Many cities have claimed to be the birthplace of Arnold. Having abandoned theology, he studied medicine in Montpellier. He traveled extensively and toward the close of the thirteenth century was a teacher at

Barcelona. He was an alchemist who sought not so much for gold as for the elixir of life. In his medical practice he adopted the chemical discoveries of the Arabs, and added them to the dietetic and hygienic rules of the Salernian school. Many of his aphorisms are worthy of record. "The modest and wise physician will never hasten to pharmacy unless compelled by necessity," said Arnold. The most valuable medical compendium of the age, *Breviarium Practicæ*, has been ascribed to him.

ROGER BACON, 1214-1298.

Roger Bacon was an Englishman, and was born near Ilchester. He was one of the most remarkable men of his time. Educated in Oxford and

Roger Bacon.

Paris, he devoted his talents, time and fortune to searching after truth. He delved into many fields, and believed in many things which were long ago relegated to the land of myth. He has been called the first inductive philosopher. His *Opus Magnum* opens with truisms which must be regarded as powerful protests against the authority of the time: "There are four impediments to knowledge: *first*, too great dependence upon authority; *second*, allowing too great weight to custom; *third*, the fear of offending the vulgar; *fourth*, the affectation of concealing ignorance by a display of a specious appearance of knowledge." He wrote on optics and the-

ology, magic and astronomy, chemistry and alchemy, and many other subjects. He investigated the tides, described the shape of the earth as spherical, compounded explosive mixtures, and wrote concerning the philosopher's stone. This he describes as "that medicine which taketh away all the impurities and corruption of a baser metal, so as to make it into purest silver and gold; and is thought by wise men to be able wholly to remove the corruptions of the human body, so as to prolong life for many ages."

Bacon found the error of the Julian calendar, which was corrected three centuries later by Gregory XIII., and called attention to the value of experimental research. While there is no doubt that many discoveries and inventions have been erroneously attributed to him, it cannot be questioned that he was one of the world's greatest men.

RAYMOND LULLY, 1235-1315.

Lully is best known as an alchemist. Like all the physicians of the time, he was a monk. Fabulous stories have been told of his accomplishments. He wrote numerous medical works, the most important being *De Pulsibus et Urinis*, *De Medicina*, *De Aquis et Oleis*. He met a tragic end, being stoned to death by the people of Tunis. Like all great minds of the middle ages, he was regarded as a sorcerer. Doubtless his alchemistic knowledge came from Arabic sources.

[TO BE CONCLUDED.]

Rachitis.—

℞	Spirit of phosphorus	ʒ iij¾
	Oil of star anise	♏ xvi
	Glycerine	ʒ ix
	Aromatic elixir	q. s. ad. ʒ xvj

Each fluid drachm contains one-fiftieth of a grain of phosphorus. This is the elixir of phosphorus devised by Dr. Charles Rice, head of the drug department of Bellevue Hospital, New York City. Children one year old can take 1-100 of a grain of phosphorus three times a day with no bad results, and in older children one-fiftieth of a grain can be given with great benefit.—DR. REGINALD H. SAYRE.

Acute Tonsilitis in Children.—

℞	Tinct. aconiti	♏ viij
	Liq. ammonii citratis	ʒ ij
	Syr. aurantii	ʒ jss
	Aq. dest.	q. s. ad. ʒ ij

M. Sig.—Teaspoonful every three hours for a child of five years.

—DOCTOR ASHBY.

NEW YORK LETTER.

The New York Academy of Medicine.—Under the presidency of Dr. William H. Thomson, a greater interest seems to be taken in the scientific programme of the regular meetings, and, as a consequence, a far larger attendance is noted, sometimes taxing to the utmost the seating capacity of Hosack Hall. Discussion on the more common diseases is the order of each meeting. Syphilis was discussed as follows: "The Treatment of Syphilis in Its Early Stages," by Dr. L. Bolton Bangs; "The Treatment of Secondary Syphilis," by Dr. Robert W. Taylor; "Differential Diagnosis of Syphilis Eruptions, and Signs in the Skin of Former Eruptions," by Dr. George H. Fox; "The Stigmata of Syphilis in Children," by Dr. R. H. M. Dawbarn; "Syphilitic Affections of the Heart," by Dr. Leonard Weber; "Syphilitic Affections of the Liver in Adults and Children," by Dr. J. George Adami, of McGill University, Montreal; "Syphilis in Relation to Obstetrics," by Dr. Egbert H. Grandin; "Some Surgical Aspects of Syphilis," by Dr. Frank Hartley; "Syphilitic Insanities and Pseudo-Insanities, with Some Remarks on Prognosis and Treatment, and the Prognosis and Treatment of Syphilis of the Nervous System in General," by Dr. C. K. Mills, of Philadelphia; "The General Diagnosis of Brain and Spinal Cord Syphilis," by Dr. B. Sachs; "Syphilis of the Respiratory Passages," by Dr. Franke Bosworth. Your correspondent, in giving the titles of papers read, hopes that it may serve to stimulate presidents in western societies to emulate the example set by Dr. Thomson. The topic now under discussion is "Malaria."

Spices and Quinine.—Dr. William H. Thomson, in a discussion on "Some of the Less Common Effects of Malaria, with Remarks upon the Treatment of Chronic Infection," stated that he always preceded a course of treatment of malaria by a mercurial laxative; that quinine should be administered in three doses, one hour apart, so that the last dose should be given about one hour before the chill. The action of this drug was promoted by spices, and so, by giving ginger with the quinine, he could give less amount of the drug. Ginger alone has been known to break up the fever. He referred to the effects of paregoric in malaria, which had been published some time ago. It might be interesting here to note the words of Dr. A. Jacobi, before the American Climatological Association, last August, when he referred to the action of ergot in chronic malaria. There were cases of chronic malaria (intermittent fever) with tumefaction of the spleen that, after having resisted the action of quinine, arsenic, methylene-blue, eucalyptus, and piperin, were benefited by ergot. When enlargement of the spleen was not old and firmly established, the contracting effects of ergot were noticed within a reasonable time. The attacks would disappear before the diminution in the size of the spleen was very marked. An experience of over forty years justified him in stating that there were many cases of apparently intractable chronic malaria that would get well under the use of ergot.

Consumptives' Hospital.—The report of the special senate committee appointed to investigate the advisability of establishing a State hospital for consumptives in the Adirondacks has been submitted to the senate. The committee recommends that this hospital shall be established, and the sum of $200,000.00 be appropriated for the erecting and equipment of these buildings. The following is deduced from the report: "A disease which carries off by death over 13,000 of the citizens of this State each year, and which involves before death the loss of the services of those afflicted with it from one to eight years, should certainly receive the serious attention of statesmen as well as philanthropists. From the standpoint of political economy alone the financial loss to the State each year is enormous, as will be shown by reliable statistics. If half of the more than 13,000 annual deaths from tuberculosis in this State can be saved, it means a saving of nearly $7,000,000.00."

The Regent's Examination.—We learn that 123 candidates were examined during January last for license to practice medicine in New York State, of whom 94 were successful. During the year 1898, 869 candidates appeared for the State Medical Board, and the total rejections were 217, or 24.97 per cent.

The New York City Medical Association has recently been incorporated, consisting of members residing in the various boroughs of the city.

The New York County Medical Association now meets at the Academy of Medicine, where greater facilities for carrying on its scientific work exists. Under the presidency of Dr. Wiggin better programmes are presented.

Suit Against the New York University.—The Medical College Laboratory of the City of New York has brought suit against the university for the medical school proper. The value of the property involved is about $200,000.00. Because of alleged violation of the agreement on which the university obtained the property from the school, in that the university assumed control of the school and the appointment of its professors and tutors, the reconveyance is asked.

Malpractice Suit.—Dr. Thomas H. Manley had been sued by a woman for the maltreatment of a thumb (*N. Y. Press*, April 12th), and there being no defense, $2,000.00 was the sum ordered in verdict. The courts have ordered the judgment nullified and directed another trial.

The Medical and Legal Relief Society of New York City was incorporated recently in Albany. The objects are to provide medical and legal relief for the poor and helpless, and to be a communication between the various hospitals and dispensaries of the city, and to give legal aid to all who are unable to employ counsel, and who have been unjustly treated.

Professional Secrecy.—Governor Roosevelt has signed an amendment to the civil code, which forbids a physician to give any information con-

cerning the mental or physical condition of his patients, either before or after his death. Hitherto the law has permitted a physician to testify concerning the physical condition of a person holding a policy of life insurance.

Pneumonia Antitoxin.—In the laboratories of the New York Board of Health, extensive experiments have been carried on during the past year, looking for the production of a serum that will have a curative action on pneumonia. These experiments are as yet incomplete, but are sufficiently promising to justify their continuance, and to give the hope that some definite results may be obtained.

Rabies.—During the year fifteen persons bitten by supposedly rabid dogs have received preventive inoculations after the Pasteur method from a physician of the New York Board of Health.

Six-Day Races.—Governor Roosevelt has signed a bill preventing these races. It provides that "in a bicycle race, or other contest of skill, speed, or endurance, wherein one or more persons shall be a contestant or contestants, it shall be unlawful for any contestant to continue in such race or contest for a longer time than twelve hours during any twenty-four hours."

The Seventh Regiment, N. G. S. N. Y.—A well-deserved testimonial has lately been given to Dr. Daniel M. Stimson on his completion of twenty years' service. It took the form of a gold medal, and was intended to be a token of esteem in which the doctor is held, not only as a surgeon and an officer, but also as a man.

Morgan Gives a Million Dollars.—Before J. Pierpont Morgan sailed for Europe on April 5th he announced to the trustees of the Society of the Lying-in Hospital that he was satisfied with the conditions on which he offered them $1,000,000.00 with which to build a new hospital building, and that the money was at their disposal whenever they wished to take possession of it. E. FRANKLIN SMITH, M. D.

Counter-Irritants.—The forms of counter-irritants now most usually employed are—in order of efficiency—the actual cautery, blisters, and iodine. In former times other methods were used, such as tartar emetic ointment or croton oil (applied to the skin), the employment of the seton or of the moxa; but nowadays these forms of counter-irritation are for the most part discarded, and reliance is placed on the three to which I have referred. Of these, the least efficacious is iodine, which, indeed, unless in superficial inflammations, does not as a rule seem to exercise any action. It is a substance which is very commonly employed in chronically enlarged glands in the neck; but, beyond diverting the attention of the patient and his friends, it does not seem to possess any real salutary effect.—DR. W. WATSON CHEYNE (*Treves' System of Surgery, Vol. I., page 74*).

LONDON LETTER.

The Plague in India.—Perhaps I may best assume the duties of your London correspondent by summarizing what is known regarding the labors of the commissioners who have been appointed by the government of this country to investigate into the nature, causes and remedies of the Indian plague. The commissioners have traveled over almost every district of India and have taken evidence from all classes of individuals who have had any plague experience in India. The views expressed by the various persons examined are, as was to be expected, very diverse, and the suggestions are equally varied. Evidence of the various inoculation methods which have been laid before the commission seems to deserve a considerable amount of attention. The medical officer in charge of the inoculations of Baroda, for instance, stated that among 513 persons inoculated at Undera there were three deaths, while of 437 persons uninoculated twenty-six died. At Katlee, among 1159 persons inoculated there were nine deaths, and among 2162 uninoculated, 110 deaths. In some cases evil effects followed, but it was doubtful whether they were due to inoculation. At Surat the evidence showed that 18,000 persons in the district were infected in December, 1896. The disease was imported from Bombay. There were 2522 admissions into the hospitals and 1726 deaths. One hundred and twenty-one persons were inoculated, none of whom were attacked. There seems to be an idea that Haffkine's fluid was valuable apart from its prophylactic properties, because it gave the people a sense of security. At Bombay Dr. Mayrs, of the Austrian mission, gave evidence before the plague commissioners and described the treatment of cases by Lustig's curative serum. In two instances, where the blood of the patient on microscopical examination showed a considerable number of plague microbes, three injections resulted in the disappearance of the symptoms and the recovery of the patients. Dr. Ismail Mahomed, member of the municipal corporation, suggested that the disease might have been brought from Hong-Kong by ships carrying fomites or dead rats in their cargo. Dead rats were found before the plague broke out at Mandvi, where Chinese goods were stored. Mr. Lund, merchant, who was on voluntary plague duty in the Mazagon and Tarwadi districts, stated that among 7000 persons inoculated there was only one death from plague.

The methods which have been recommended to the commission for staying the growth of the plague includes the results of experiments made by Dr. Sulemani, chief medical officer at Baroda, showing that nitric peroxide was the best disinfectant, as it destroyed both the smell and infusoria of the sewage, and that the percentage of attacks in houses thus disinfected was less than when perchloride of mercury was used. It was suggested that human agency was necessary for the importation of the disease, and that the importation of grain might be a suspicious factor. At Bombay it seems that the European supervision generally overcame the plague, and Major Roughton, Bombay Volunteer Artillery, recommended the adoption of the system employed in London during the plague of 1665, as related by Defoe—of locking up the houses and confining the

inhabitants inside, unless the natives underwent segregation. In his view, overcrowding, subsoil water, bad drainage, would keep the plague permanently in Bombay. In certain districts, as at Satara, the people refused to be inoculated, and it was observed that among those living in the open air and among Europeans there were no cases of plague. At Nasik the commissioners were informed that out of a population of 25,000, five hundred cases had occurred in the first epidemic and two hundred in the second. At Jalgaon the removal of the inhabitants from their homes prevented the disease from spreading. Nasik was probably infected from Igatpuri by human agency. The epidemic was worst in the cold weather, but the ward system proved satisfactory. At Bombay Dr. Cayley gave the results of his examination of the sputum in cases of primary and secondary plague pneumonia. He found that the bacillus was present in early stages of primary plague pneumonia; the sputum contained practically pure cultures of plague bacilli. In cases of secondary pneumonia the sputum was examined microscopically. In the majority of cases it apparently contained plague bacilli, but he had been only able to isolate the bacilli in seventeen cases out of forty-three. The bacilli were not found in the perspiration or the scrapings of the surface of the skin. Dr. Crimmin, port health officer of Bombay, said that the total number of vessels arriving and leaving the port which were subject to inspection was 162,064, carrying a total of 2,870,454 crew and passengers. Out of that number 374 cases of plague had been found. The period of incubation was from three to five days. During the present epidemic, which began in December last, as far as could be ascertained, no case of plague left Bombay for any port out of India. Dr. Haffkine stated that, though his prophylactic was generally sterile, it was impossible to avoid occasional impurities, owing to the stress of work, but the danger arising therefrom was insignificant. The general low mortality among inoculated people was due to the fact that the inoculation of pathogenic microbes influenced the course of disease by other infections as well as plague.

The Plague Commission terminated their visit to India with the evidence taken at Bombay, and left that port in the *Arabia* for London, where they will continue to take further evidence; and it is expected that their report on this question will be published by the month of August. Its value will be greatly enhanced, not only from the vast amount of statistical and other information which it will afford, but from the value that must certainly be attached to the pronouncements of men so eminent in their respective professional spheres as Sir Thomas Fraser, of Edinburgh; Dr. Armand Ruffer, head of the Sanitary Department of Egypt, and Dr. Wright, pathologist of Netley Hospital.

The condition of Bombay at the present time shows that the plague is on the decline there. Five weeks ago the populace was dying at the rate of three hundred and fifty a day. Now that the hot weather has set in the plague is retreating, and the mortality has fallen to one hundred and ninety-three, of which cases probably about one hundred were plague cases. The bulk of the natives no longer seem to fear the plague; familiarity with it for three years has taken away its terrors, and the action of the government has tranquillized their minds. The plague still continues throughout the Bombay Presidency. The Punjab is not very seriously

affected. The Madras Presidency remains comparatively healthy, the climate and soil of that district being regarded as unfavorable to the plague. An improvement is also reported in the Nizam's dominions. In Bengal the plague reappeared in the middle of February. In Calcutta by the end of March the death-rate there had risen to two hundred weekly; but here, also, as the heat increases the plague mortality decreases. Strong comment has been roused by the action of the Bengal government in recommending plague officers to offer no encouragement to those wishing to be inoculated. The Bombay government has similarly been condemned for its lukewarmness on this matter. In the town of Hugli 33,000 persons were inoculated with the Haffkine fluid; 6000 remained uninoculated; in one week three hundred and seventy-one deaths occurred among the 6000 uninoculated persons, and only forty-one among the 33,000 who had been inoculated with the Haffkine fluid.

The Death of Sir John Struthers.—The hand of death has withdrawn from the medical world three of its most outstanding and renowned figures—two Scotch professors, and Sir William Roberts, who practiced in London, but who was of Welsh extraction. Scotland has lost Sir John Struthers, the world-renowned anatomist, who for many years was professor of anatomy in Aberdeen University; where, indeed, he may be said to have constructed the anatomical buildings and the plan of instruction, and provided, largely at his own expense and more largely as the result of his anatomical skill, the important museum attached to that institution. For many years Sir John Struthers was one of the most important members of the General Medical Council of Education and Registration of Great Britain and Ireland. It was to him that the council deputed the onerous task of reconstructing the educational scheme for the preliminary examination of medical students in this country.

To his persevering, persistent efforts, this country may be said to owe the five years' medical curriculum. Sir John Struthers was a manager of the Royal Infirmary of Edinburgh, and took an active interest in everything connected with the welfare and progress of that magnificent institution, but his soul was, most of all, engaged and entranced with the welfare of the Royal College of Surgeons of Edinburgh, an institution to which in his student days he had owed a considerable amount of his subsequent success in life. He always spoke gratefully of the college and never missed an opportunity of adding to its scientific riches and usefulness, whether by adding specimens or by rearranging and classifying those representing the work of the famous surgeons and anatomists of the past already there. Struthers had acted as the *locum tenens* of Goodsir, the professor of anatomy in Edinburgh after the last Monroe.

In his later life Goodsir was afflicted with locomotor ataxia, became irritable and allowed his teaching to fall considerably behind. Sir John Struthers was wont to relate that on one occasion Dr. Knox, the brilliant anatomist, who failed through Edinburgh prejudice, went to one of Goodsir's lectures at the Royal College of Surgeons, but fell asleep during its delivery. Goodsir's illness began in 1853, and was first noticed when he was about to read a paper at the Medical Chirurgical Society of Edinburgh, Professor Syme occupying the chair. Goodsir was a tall, gaunt

man, and when he stood up to deliver his paper he remained silent, looking around him, and all saw that he was not well. He sat down heavily, and in a few minutes rose and staggered out of the room like a drunken man. He went abroad to Nice, having made no arrangements and without announcing what he was going to do. When asked what the university was going to do in his absence he replied "they could do as they liked." It was then that Dr. Struthers was asked by Professor Syme whether he would undertake the duties of the chair at the Edinburgh University. The classes numbered at this time 450 pupils. Perhaps Dr. Struthers' views on some subjects of past medical history of Scotland may give your readers some indication of how science in that country had to contend with religious bigotry and experience, and of the efforts which were required to effect reform in the great Scotch universities. Formerly, all the fees and property were managed by professors, but by the act of 1889 Dr. Struthers got the government to change that and remit it to the governing body—the university court. "The professor," he said, "should stick to teaching of science and research and not to managing university funds and property." Dr. Struthers was often at the home office managing these things for Aberdeen University. Lord Lothian was then home secretary for Scotland, and on one occasion he showed Dr. Struthers the bill proposing to continue the management of the funds and property by the Senatus Academicus. Struthers added a correction "shall be transferred to university court," and the bill came out with this addition, to the surprise of his colleagues. So that now the governing body of the university, and not the professors, manage the funds and property of these institutions. Struthers was asked to go on the University Commission, but his brother's illness prevented him from accepting the invitation. He gave evidence before it, however, and urged that professors should be paid by salary and not by students' fees. This was before the Commission of Enquiry, 1876. His reasons were that it had become a scandal for medical students to attend the lectures of those professors who were also to be their examiners. This made the student return again and again saying, "I will take him out a second time and that will get me through my examination." Struthers' contention was that professors should either drop their examination functions or their fee-taking functions. As a result of Dr. Struthers' work the professors' salaries are now fixed in Scotland. All existing men are guaranteed. The income of future professors may rise or fall with the prosperity of the university, so that they still retain a general interest in the welfare of their university, but no longer have any interest in getting a man to reattend their own particular lectures.

During Dr. Struthers' professoriate in Aberdeen the attendance ran up to triple its original number, simply because it was always his aim constantly to adapt the school to the needs of the times. Glasgow increased largely, but not in the same proportion. Half of the students at Edinburgh were English or colonial and the other half Scotch. In Aberdeen a third of the students were English or colonial, two-thirds Scotch. On the present condition of the medical school, Dr. Struthers expressed the view that they had more students than they could teach "*practically*." When he left they had 450, at present only 150 attend. It always ap-

peared to Dr. Struthers that the medical journals in London were fond of ringing the changes on the falling off of the Scotch medical schools, forgetting, as he pointed out, that diminution in numbers meant increase in the teaching strength and increase in the quality of the students.

Sir John was a man of war always embroiled in some reform. He was not, indeed, a Napoleon wiping off obstacles with a brilliant blow, and calling all men to his banner. His victories were gained in single combat with his back to the rock and his face to the foe. When once he took up a position, he never left it until his purposes had been achieved, and these purposes had the double honor, that while following them with eagerness and persistence, his actions, so far as he personally was concerned, were entirely disinterested, and his life was passed in complete devotion to the interests of scientific research, especially in the field of medical science, which he loved so much. A career like that of Sir John Struthers, so full of interest and variety, could well afford to be described at greater length, and, doubtless, this is specially felt by one who, like your correspondent, was taught by him, examined by him, and who had shared his friendship and his hospitality for many years.

The Death of Professor Rutherford, of Edinburgh.—Another Scotch professor who has passed away was the world-renowned physiologist, Professor Rutherford, whose great abilities, wonderful scientific acumen and researches, especially connected with the circulation of the blood and the hepatic secretion, gave him a world-wide eminence. His career in Edinburgh was rather marred by the ill-usage conferred upon him by some of the younger school of physiologists, including Stockman and young Paton, who thought to set the heather on fire by their burning physiologic zeal, and could not refrain from throwing their juvenile and somewhat crude efforts into the fray against Professor Rutherford. This was all the more shameful, as it was well known that for some years Professor Rutherford had been suffering from a form of illness which manifested itself in peculiar notions, which rather disturbed those with whom he had to deal personally as his assistants. Whatever was Professor Rutherford's position as an original experimentalist, his influence in that direction was but slight compared with his skill as a teacher.

An account of the life-work of Sir William Roberts and its bearing on modern medicine may, I think, be left for my next communication.

London, England. W. L. BROWN, L. R. C. P.

Nirvanin.—Luschenburger (*Münch. med. Woch.*, No. 2, 1899) describes a new local anesthetic, which is said to have many advantages over cocain. As it is only one-tenth as poisonous as cocain, large amounts can be injected. Ninety-four operations are tabulated in which nirvanin was used as a local anesthetic, and in no case were there unpleasant symptoms. The author claims that under its influence the radical cure for hernia can be performed, the amputation of fingers and toes, and the removal of necrosed bone, etc. A two per cent. solution with sterilized saline fluid is recommended.

MEDICAL NOTES.

The German expedition for the study of malaria, composed of Koch, Pfeiffer, and Kossel, has made a report of its results. A total of one hundred and twenty malarial patients were examined. It was found that the estivo-autumnal fever, despite the variability of its clinical types, was a distinct species, having its special form of parasite. Estivo-autumnal fever is a tertian fever, and is the same as the malaria of the tropics. The commission was able to demonstrate the presence of chromatin granules in the crescents, and even in the flagella; and it looks upon the latter, not as flagella, but as spermatozoa. No advance was made in the study of the cycle of development of the plasmodium, but the commission found in birds a parasite similar to that of man, on which experimental studies are possible. This parasite is the proteosoma which Ross has studied in India. Interesting investigations were made on the temporal and topographic distribution of malaria. Rome lies in an extensive malarial district, but is itself free from the disease, at least in its interior. The cause of the absence of malaria in Rome is not to be found in the air, as this at all times blows over Rome from the Campagna; nor in the water, or the food, both of which come from the malarial districts. The only factor that comes into play is that, as the interior of the city is without vegetation, it is entirely free of mosquitos. Malaria is rare in winter, a few cases are seen in the spring, but in June the number becomes very large. Another point observed by the commission was the successful use of methylene-blue in two cases of malaria. Koch also states that he found in the cattle of the Campagna, which suffer from Texas fever, the same tick that spreads Texas fever in Africa, and which is identical with that found in Texas.—*Philadelphia Medical Journal.*

Syphilitic Iritis.—The chief symptoms are (1) ciliary congestion with a certain amount of pain referred to the forehead or temple, photophobia, and lachrymation; (2) discolored iris, sluggish action of the pupil, which dilates irregularly under atropine; (3) adhesions to the lens, deposit of uveal pigment, nodules of lymph in or on the iris.—JONATHAN HUTCHINSON, JR.

A New and Simple Clinical Method of Staining Malarial Parasites.—Dr. Fuchten has recently presented to the Johns Hopkins Hospital Medical Society a rapid and very convenient method of staining the plasmodium malariæ. The dry blood specimen, spread in a thin film on a slide, as described by Ehrlich, is fixed by immersion for one minute in a one per cent. solution of formalin in ninety per cent. alcohol. Thyonin is the staining agent. A stock solution is made by adding 20 c.c. of a fifty per cent. alcoholic solution of thyonin to 100 c.c. of a two per cent. solution of carbolic acid. This stock solution improves with age, and can therefore be kept on hand. The fixed slide is dipped in the staining fluid, without previously washing off the excess of formalin solution, and left there for from ten to fifteen seconds. Ten seconds generally gives the

most satisfactory results. The excess stain is washed off, and the specimen, mounted in balsam, is ready to be examined. The malarial parasites come out distinctly with this stain, and retain the color much better than when stained with methylene-blue. The thyonin stain has also been used to bring out the flagellated processes in the æstivo-autumnal infections, and some good specimens have been obtained.—*Medical Record.*

Opium Poisoning has again been successfully treated with potassium permanganate. Dr. Rindfleisch[1] reports the case of a laborer who took twenty grn. (five dr.) of tincture opium who had lost all consciousness and was in the severest stages of the poisoning. An hour after the symptoms were manifest his stomach was washed out and two centimeters of a two per cent. solution of potassium permanganate were injected subcutaneously. This was repeated, and within an hour after the beginning of the treatment consciousness returned, and he was soon completely restored to a normal condition. Rindfleisch further recommends the use of a solution of permanganate (1–2000) for washing out the stomach. In a historical résumé the author points out that this remedy was first used in 1877 by an American physician, but until the recent work of Moore the matter was forgotten.

Sheet Rub in Functional Nervous Diseases.—H. T. Patrick (*Chicago Medical Recorder*, February, 1899), before the Chicago Medical Society, December 21, 1898, recommended the sheet rub in functional nervous diseases. The success of this mode of treatment depends upon its being done correctly. The rub is given at the bedside. Two sheets are used, and these must be placed in such a manner as to admit of instant handling—either over the end of a chair or the foot of the bed. One sheet is dipped in cold salt water, as a better reaction is obtained from salt water than from clear. The patient is taken from the bed and the cold sheet instantly thrown around him. After briskly and vigorously rubbing him through this sheet, it is dropped to the floor, and he is quickly rubbed through the dry one. He then gets into bed, covers himself well, and puts out his feet to be dried, and slapped to promote circulation. To be properly done, this rub should not occupy over a minute and a quarter; if three minutes are taken, the rub is not properly given. It is exceedingly hard work and completely exhausts the nurse or physician who gives it correctly. It is usually given before breakfast. Dr. Patrick gives the first rub himself, and the second is given in his presence, that his instructions may be fully understood. He finds that it quickens circulation, assists the patient to gain in weight, helps in keeping extremities warm, and aids digestion. He thinks that certain elements in the treatment are particularly beneficial in nervous diseases. It produces profound mental impression, exceeding that of any other mode. There is sudden shock, quick reaction, and the feeling of comfort and warmth following impresses the patient with the fact that he is getting well. The author has never failed to obtain reaction, even in patients who had to be held up while taking the rub.—*Medicine.*

[1] *Zeitschrift f. prakt. Aerzte*, 1899, No. 3.

SURGICAL SUGGESTIONS.

Hemorrhage in the New-Born.—When the hemorrhage is from the umbilicus, we should begin by loosening the dressings and trying different methods of ligature, but in some cases these all seem to be absolutely useless. In case of gastro-intestinal hemorrhage, the infant should be placed in an incubator at a temperature of thirty-seven degrees C., or in warm cotton. Three times daily it should have mustard baths, followed by friction with alcohol, hot baths, hot-water bags to the abdomen, hot whisky, and subcutaneous injections of a solution of sodium chlorid, 7 to 100, in amounts of from ten to fifteen grams, repeated four or five times daily. —Dr. H. Brooker Mills.

Pelvic Abscess.—The objections that may be reasonably urged against the vaginal route is that it is necessary to depend upon the sense of touch altogether; it is work in the dark. In pelvic abscess, where it is found necessary to remove adherent appendages, the operation through the vagina is very difficult, and injury to the intestines and ureters is likely to occur. In cases where the abscess reaches low in the pelvis, pointing into Douglas' pouch, I certainly would prefer the vaginal route under such circumstances, believing that there would be less danger of infecting the general peritoneal cavity in operating through the vagina. Mere incision and drainage should be practiced only in desperate cases, where the condition of the patient will not admit of a more formidable operation. Patients quite often make a complete recovery from incision, irrigation and drainage; but it is often found necessary to operate the second time to complete the cure; it is always advisable, when the condition of the patient will admit, to make a complete operation at first. Pus cases do not stand well prolonged anæsthesia and shock, so it is very necessary to operate quickly, and I recommend thorough irrigation and drainage.—Dr. O. B. Campbell (*The New York Medical Times*, March).

Hydrocele.—In cases of complicated, doubtful, or old hydrocele, resection of the tunica vaginalis. In simple cases, injection method, using five cm. of pure tincture of iodin, after first emptying the sac and cocainizing. —Malherbe.

Appendicitis.—Personally I would allow my junior assistant on the hospital staff to operate upon me for appendicitis, rather than try the best medical treatment for one day.—Dr. Robert T. Morris.

Treatment of Wounds.—The antiseptic method, if contact of strong antiseptics with raw surfaces be avoided, allows an ideal wound-healing.

In an uninfected wound no drainage is necessary.

For the arrest of hemorrhage, torsion should replace the ligature in the great majority of cases.

Buried catgut sutures are the best for securing apposition of the deeper structures and the skin, for by their use stitch-abscesses and the pain and trouble of removing sutures may be avoided.

All clean wounds should be left undisturbed for ten day and should then be healed.—RUTHERFORD MORRISON.

Intestinal Obstruction.—We must all learn that purgatives are dangerous in suspected intestinal obstruction, and that a surgeon should be called in consultation as soon as enemas sufficiently given fail to relieve the obstruction. Many lives will be saved by the recognition of the necessity of such a course of treatment.—JOHN B. ROBERTS.

Puerperal Sepsis.—Four simple things, if universally and carefully used to-day, would very nearly banish puerperal sepsis. They are: (1) The hand scrubbing brush. (2) The bichloride of mercury or equivalent solution for hands and external genitals. (3) The baked (*i. e.*, sterilized) napkin. (4) The clean suit.—GEO. ERETY SHOEMAKER.

Phagocytosis.—In connection with this (abscess) I would like to summarize the story of inflammation and suppuration, to paraphrase Sutton, and read it zoölogically, as though it were the story of a battle. The leucocytes (phagocytes) are the defending army, the vessels its lines of communication, the leucocytes being, in effect, the standing army maintained by every composite organism. When this body is invaded by bacteria or other irritants, information of the invasion is telegraphed by means of the vaso-motor nerves, and leucocytes are pushed to the front, reinforcement being readily furnished, so that the standing army of white corpuscles may be increased to thirty or forty times the normal standard. In this conflict cells die, and often are eaten by their companions. Frequently the slaughter is so great that the tissues become burdened by the dead bodies of the soldiers in the form of pus, the activity of the cells being proven by the fact that their protoplasm often contains bacilli in various stages of destruction. These dead cells, like the corpses of soldiers who fall in battle, later become hurtful to the organism which, during their lives, it was their duty to protect, for they are fertile sources of septicæmia and pyæmia. This illustration may seem a little romantic, but is warranted by the facts.—DR. ROSWELL PARK ("A Treatise on Surgery," page 79).

To Remove Blood From the Hands.—When you have blood upon your hands, first wash them in pure water. Using soap at first is a mistake, as soapy water does not dissolve blood rapidly. Clear water and a nail brush should come first, soap next.—*International Journal of Surgery.*

The Ready-Reference Hand-Book of Diseases of the Skin. By GEORGE THOMAS JACKSON, M. D., Professor of Dermatology, Woman's Medical College of the New York Infirmary and in the Medical Department of the University of Vermont; Chief of Clinic and Instructor in Dermatology, College of Physicians and Surgeons, New York. New (third) edition. In one 12mo volume of 638 pages, with seventy-five illustrations and a colored plate. Cloth, $2.50, net. Lea Brothers & Co., Philadelphia and New York.

The early exhaustion of the second edition of this work is a gratifying indication of the favor with which it is regarded by students and practitioners. All dermatological advances made in the interval are fully presented in the new edition by revision and by the addition of new matter and illustrations.

The alphabetical arrangement of the book having proved so acceptable, has not been changed, and practitioners, students and specialists will find it, as heretofore, a most concise and readily available source of knowledge on all dermal affections, their etiology, symptoms, diagnosis, treatment, prognosis, etc.

A Manual of Venereal Diseases. By JAMES R. HAYDEN, M. D., Chief of Clinic and Instructor in Genito-Urinary and Venereal Diseases, College of Physicians and Surgeons, New York; Professor of Genito-Urinary and Venereal Diseases in the Medical Department of the University of Vermont, etc. New (second) edition, revised and enlarged. In one 12mo volume of 304 pages, with fifty-four engravings. Cloth, $1.50, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

The author of this book is to be congratulated that a second edition has so soon been called for. The work is a clear exposition of venereal diseases, and as such is valuable alike to practitioner and student. Modern methods of diagnosis and treatment are presented in a clear and forcible manner.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 490 pages, 28 illustrations and 3 colored plates. Lea Brothers & Co., Philadelphia and New York.

"Progressive Medicine" differs radically from the many year-books, annuals or abstracts in which, by mere collation of material an effort has been

made to represent medical advance. The mass gathered in such publications is left for the reader to sift and digest, a mental process which the immensity of modern medical advance has rendered a virtual impossibility for the average reader, who must nowadays rely upon the specialist to reduce science to applicable form. Recognizing this fact, Professor Hare has secured a corps of the most capable and advanced men, each of whom tells, in his own language and in the form of an interesting narrative, the story of medical progress in his special line. The four volumes which will be published each year will cover the entire round of practical medicine in the broadest sense, and their appearance at intervals of three months, instead of annually, will insure the more rapid diffusion of knowledge, which is a requirement of our times. The first volume, just issued, is a substantial octavo of nearly 500 pages, illustrated with engravings and colored plates, and, as the yearly price for the set of four volumes is only $10.00, it is evident that an exceedingly large demand is anticipated. That these expectations will probably be fulfilled is a fair prediction in view of the admirable manner in which the able contributors have executed Professor Hare's novel and ingenious plan.

Diseases of the Skin. An outline of the Principles and Practice of Dermatology. By MALCOLM MORRIS, F. R. C. S., Surgeon to the Skin Department, St. Mary's Hospital, London. New (second) edition. Revised and enlarged. In one 12mo volume of 601 pages, with 10 colored plates and 26 engravings. Cloth, $3.25 net. Lea Brothers & Co., Publishers, Philadelphia and New York.

Malcolm Morris is well and favorably known on this side of the Atlantic, not only as a Dermatologist, but as the editor of the London *Practitioner*, the best of the English monthly medical journals. Among English-speaking dermatologists of the present day none stand higher than he. With great literary skill he has condensed his enormous experience into a work of convenient size, which has speedily come to the present new edition. This issue has been thoroughly revised to date, and much fresh matter has been added both in text and illustrations, the latter now including ten colored plates. As the work includes the pathology, classification, diagnosis and treatment of skin diseases, it forms a compendious manual, suitable alike for the student and practitioner, and its high authority will commend it to the specialist.

Senile Pruritus.—

℞ Potassii bromidi ..... ℥ ij
Sodii iodidi ..... ʒ j
Sodii salicylat ..... ʒ ij
Sodii acetatis ..... ʒ j
Inf. gentianæ ..... ʒ iv.
M. Sig.—Two teaspoonfuls in water after each meal.

—LAVALLEE (*Revue de Therap. Medico-Chirurg.*).

HYDROZONE

(30 volumes preserved aqueous solution of H_2O_3)

IS THE MOST POWERFUL ANTISEPTIC AND PUS DESTROYER.
HARMLESS STIMULANT TO HEALTHY GRANULATIONS.

GLYCOZONE

(C. P. Glycerine combined with Ozone)

THE MOST POWERFUL HEALING AGENT KNOWN.

These remedies cure all diseases caused by Germs.
Successfully used in the treatment of diseases of the Genito-Urinary Organs (Acute or Chronic):

WHITES, LEUCORRHŒA, VAGINITIS, METRITIS, ENDOMETRITIS, ULCERATION of the UTERUS, - URETHRITIS, GONORRHŒA, - CYSTITIS, ULCER of the BLADDER, Etc.

Send for free 240-page book "Treatment of Diseases caused by Germs," containing reprints of 120 scientific articles by leading contributors to medical literature.

Physicians remitting 50 cents will receive one complimentary sample of each, "Hydrozone" and "Glycozone" by express, charges prepaid.

Hydrozone is put up only in extra small, small, medium, and large size bottles, bearing a red label, white letters, gold and blue border with my signature.

Glycozone is put up only in 4-oz., 8-oz. and 16-oz. bottles, bearing a yellow label, white and black letters, red and blue border with my signature.

Marchand's Eye Balsam cures all inflammatory and contagious diseases of the eyes.

PREPARED ONLY BY

Charles Marchand

Chemist and Graduate of the "Ecole Centrale des Arts et Manufactures de Paris" (France).

Charles Marchand, 28 Prince St., New York.

Sold by leading Druggists. Avoid Imitations. ☞Mention this Publication.

These **ESSENTIALS** for the **PERFECT EMULSION** of Cod Liver Oil:

Full Fifty % Choicest Norway Oil, chemically unchanged;
Emulsionizing of the Oil by Pancreatine;
Minute Sub-Division of the Oil Globules, as in Milk;
Acid Reaction—To Preclude Saponification;
Complete Miscibility in Water, Milk or other Fluid;
Digestibility—Palatability—Permanency.

Are fully met in the . . .

PHILLIPS' EMULSION

WITH THE SOLUBLE PHOSPHATES.

It furnishes at once those elements of nutrition to counteract systemic waste—the *OIL* supplying *FAT*, the *PHOSPHATES, FOOD* for *BLOOD, BRAIN* and *NERVE*—not exhibited in any other preparation. Prescribe *"PHILLIPS'."*

PHILLIPS' DIGESTIBLE COCOA

A DELICIOUS FOOD-DRINK.

It contains ALL the nutritious constituents of choicest beans—(the fat being peptonized, is rendered easy of digestion and assimilation) and will not disturb the sensitive stomach. The incorporation of the **Soluble Phosphates** adds to its nutrition. Invaluable to the invalid, the nursing mother and of great service to brain workers.

THE ONLY COCOA WITH A RICH CHOCOLATE FLAVOR.

PHILLIPS' { PHOSPHO-MURIATE OF QUININE, Comp. / WHEAT PHOSPHATES. / MILK OF MAGNESIA.

THE CHAS. H. PHILLIPS CHEMICAL CO.
77 Pine St., New York.

NEW REMEDIES.

Phenylacetamid Ammoniated (Ammonol.)—(By Dr. H. P. Wells, of St. Louis, Mo.)—The idiosyncrasy of individuals to the various coal-tar products is as various as the products themselves. The most constant effect seems to be depression of the heart and respiration with cyanosis, produced by an alteration of the red blood corpuscles. The cyanosis may be pronounced, but is seldom a serious symptom where the cardiac and respiratory depression is absent. The idiosyncrasy is shown more readily where this class of agents is used in non-febrile disorders rather than in febrile disorders. The febrile state seems to render the red corpuscle susceptible to the disorganizing influence of coal-tar products; but if the fever is of sthenic type, the heart is not as likely to be depressed conjointly with the reduction of fever as it would be were the fever of the asthenic type. Likewise, the disorganizing influence of this group of remedies upon the red blood cells is seldom of itself sufficient to interfere seriously with the vital functions. It is in cardiac and respiratory depression, together with cyanosis of corpuscular disorganization, that life is endangered.

A coal-tar product that is without depressing action upon the heart is what the profession has long required. Phenylacetamid ammoniated seems to be the looked-for agent. Having made careful physiological and clinical investigations for over two years, I can assert that no other pharmaceutical preparation, synthetic or mechanical, has an equal therapeutic potency, and is at the same time devoid of untoward action. It is not as rapid in its action as antipyrine, unless taken with a little sweet wine (sour wine retards the development of full physiological action about half an hour), in which case the characteristic action of the remedy will be noted in about twenty to thirty minutes, which, in case of fever, is a gentle perspiration, followed by a reduction of temperature to normal, but never below normal. Incidentally, all headache, neuralgic or rheumatic pain is relieved; and during the continuation of the activity of the drug the patient feels in the full vigor of health. As the drug is eliminated its effects pass off. The first thing the patient notices at this stage is a chilliness which characterizes the rise of the temperature. The physiological activity of phenylacetamid ammoniated persists about six hours, dependent upon the size of the dose, which may be given it from five grain to fifteen-grain doses in all cases with absolute safety. The duration depends upon the size of the dose, an approximate calculation being an hour and a half for every two grains.

Mr. B., aged twenty-six, weight 170, called February 4th, suffering from trifacial neuralgia of the upper right maxilla with swelling. A number of remedies were tried, including cannabis indica, with but partial relief. Phenylacetamid ammoniated (ammonol) was administered in five-grain doses, with the result of completely relieving the pain inside of half an hour. As the pain was relieved the swelling subsided. The effect of each five-grain dose persisted from three to four hours, and the cure was complete with twelve doses.

Schering's Medicinal Specialties.

PIPERAZINE

Well Known Remedy in the Treatment of Uric Acid Diathesis.

PHENOCOLL

Soluble Antipyretic,
A Sedative in Whooping Cough, Malaria Specific.

CHLORALAMID

Absolutely Safe Hypnotic.

ELIXIR CHLORALAMID presents the remedy in most suitable form.

PIPERAZINE WATER

Efficacious in Gouty Conditions;

A Prophylactic and Eliminant of Uric Acid.

Complete Literature Supplied by

LEHN & FINK, SOLE AGENTS, NEW YORK.

HYPO=QUINIDOL (Gardner).

A NEW FORM OF QUININE, SUPERIOR TO THE SULPHATE AS A TONIC, ANTI-PERIODIC AND HÆMATOGENIC.

A new chemical combination of quinine and phosphorus, freely assimilable, non-irritant, very soluble, and indicated in all cases of fevers, malarial troubles and as a tonic. Its indications are the same as for sulphate of quinine.

The phosphorus, being in its lowest state of oxidation, is free from irritating properties, and acts as a powerful hæmatogenic, thus counteracting the pathological action of the quinine upon the blood, while the tonic, anti-periodic and germicidal action of the compound is superior to that of the sulphate quinine.

Hypo-Quinidol (Gardner), being very soluble and deliquescent, is only put up in the form of pills (1 and 2 grains), protected from atmospheric oxidation and deliquescence by an impervious coating, which also conceals its bitter taste. Literature upon this new preparation sent physicians only upon request and receipt of professional card. Address:

R. W. GARDNER, Pharmaceutical Chemist,
156 William St., New York City.

SCHIEFFELIN & Co., New York, Distributing Agents for U. S. A.

On February 6th, Mrs. T., aged forty, had an obscure fever with a bronchial cough. Temperature, 103°; pulse, 120; headache. Ammonol was prescribed in five-grain doses every three or four hours. In half an hour the headache was relieved and fever declined to normal. Next day cough was much improved. In five days cough was practically cured, but on withdrawing the medicine the headache and fever returned. Diagnosis of malaria of remittent type was then made, and specific treatment instituted in addition to ammonol, which invariably controlled the temperature and neuralgia. Her bowels had been regular from the beginning.

Miss K., aged eighteen, well developed and not anæmic, complained on February 10th of ovarian neuralgia and scanty menstruation. Her previous period was unusually severe, and, as she was approaching the next period, concluded to consult a physician. Headaches always accompanied her ovarian neuralgia. Bowels were regular, heart weak and irregular. Ammonol in five-grain doses every three hours gave entire satisfaction. Had it not been for the flow she said she would not have known that she was "unwell" at all, so entirely free from pain was she throughout the period.

Willie O., aged nine years. A year ago he had typhoid fever with a weak pulse of 130 and a daily temperature of 104.6°, until it was reduced with an antipyretic. The nature of the fever contra-indicated any form of a depressant, so it was with caution that I prescribed ammonol in three-grain doses every three hours on account of its coal-tar nature; but, relying upon the correcting influence of its ammoniation, I determined to try it. The pulse went down to 100 and more vigorous, the fever to 99°, and the delirium subsided, permitting a refreshing sleep. These happy effects led me to continue its use throughout the course of the disease, with the most satisfactory results.

These are only a few cases out of many, but they are examples of the effect of ammoniated phenylacetamid on neuralgia, cough and fever, which place it at the top of the list of antipyretics and antineuralgics. Its strengthening effect on the heart gives it a unique place in the treatment of fevers of asthenic type, such as typhoid, typhus, tuberculosis, septicæmia, etc., which contra-indicate all other sedative antipyretics. I have never seen any cyanosis or difficulty of breathing from its use, and all those who are susceptible to the coal-tar group may, I believe, take this agent with impunity.

Glyco-thymoline: The New Blennostasic in Nasal Catarrh.—(By G. Howard Thompson, M. D.)—Nasal catarrh and its many complications has caused endless annoyance and uneasiness, both to the patient and the medical practitioner. Once firmly established, it becomes the starting place of various extensive chronic inflammations of the whole respiratory mucous membrane. Having heretofore been almost incapable of successful treatment at the hands even of specialists, it served as the foundation of scare arguments so successfully employed by the advertising quack and patent medicine peddler.

Happily, we have now a means at hand for successfully combating this obstinate condition. It requires none of the hitherto expensive inhalation or vaporization machinery for its employment. Glyco-thymoline is

used with a simple glass reservoir, known by the name of the Birmingham douche, and is exceedingly inexpensive. The medicine itself is an elegant claret colored, slightly alkaline, antiseptic solution, each ounce of which contains in the proportion here stated the following ingredients.

Sodii	24.
Acidi borici	4.
Benzoini	4.
Acidi salicylici	.33
Ol. eucalypti	.33
Thymolini	.17
Betulæ lentæ	.08
Mentholi	.08
Pini pumilionis	.17

With glycerine and solvents sufficient.

This the physician will at once perceive, when diluted to twenty per cent. strength, is approximately the alkalinity of blood serum—the normal salt solution. Most of the agents used by the writer, up to about three years ago, were either too irritating by reason of too much carbolic acid, too much alkalinity, or too strong in some antiseptic or other ingredient.

Glyco-thymoline should, however, not be used in concentration. In acute nasal catarrh a twenty per cent. solution with distilled water is best to commence with. This may be increased to thirty per cent. as the trouble subsides. In acute nasal catarrh the mucous membrane, as we all know, is very sensitive, and even a normal salt solution will produce some irritation. A twenty per cent. solution will not be more irritating than a normal salt solution in acute nasal catarrh, and all will agree that this reduction of irritability is the least that can be secured under such conditions.

In a case of acute nasal catarrh, acute rhinitis or, as it is frequently called, coryza, commence with a twenty per cent. solution of glyco-thymoline (using the Birmingham douche for this purpose), repeating as often as the secretions recur. It will be noticed that they recur with an ever-decreasing quantity and at an ever-increasing interval of time, until the secretions cease to reform, the turgescence of the nasal mucous membrane decreases to normal, and the breathing is carried on without pain, annoyance or inconvenience. This will take about three days from start to finish, if commenced early enough.

Should, however, the attack have progressed until the secretions are thick and the breathing painful by reason of turgescence already several days established, accompanied with persistent accumulation of muco-purulent discharges, it will take a couple of days more to effect a cure. If the case is not taken in time the condition becomes chronic and may require two or three weeks to cure it.

Besides the tendency of acute nasal catarrh to become chronic, it frequently spreads along the entire respiratory tract, going through the successive stages of rhinitis, laryngitis, bronchitis and predisposes to pneumonia.

Space will not permit the writer to report any individual cases in the present article, but the reader is respectfully referred to previous numbers of this publication and the *Am. Journal of Surg. and Gynæcology*, where

numerous cases of acute, subacute and chronic rhinitis are reported in full.

Besides using glyco-thymolineal most exclusively in various forms of nasal catarrh, the writer finds it a mouth wash unexcelled as a deodorant for foul breath and as a cleanser for the teeth. If foul breath is due to fermentation in the stomach caused by dyspepsia, it will arrest the fermentative process if taken internally in doses of a teaspoonful diluted to the taste.

Crawford Building, Sixth and Washington Avenue.

Vasogen: A New Solvent.—Vasogen is a vehicle which possesses the property of penetrating the pores of the skin more quickly than any other substance. It is an admirable solvent, holding in clear solution iodine, iodoform, creosote, guaiacol, etc., and remedies dissolved in it are quickly absorbed. Chemically, vasogen is an oxygenated hydrocarbon—*i. e.*, a partly oxidized hydrocarbon—and has the power of rendering drugs which are incorporated with it soluble in water or emulsifiable with it. Employed externally, it forms emulsions with the secretions of the body, and thus becomes rapidly absorbed. This fact has been proved beyond question by the presence of the drug in the urine after inunction with iodine, iodoform, creosote and mercury vasogen. Iodine, creosote, etc., when dissolved in vasogen, do not irritate the skin or mucous membranes, and can be used extensively both internally and externally.

For external use, liquid vasogen preparations are poured into wounds or are applied to them on cotton or lint; they are also painted upon the intact skin or rubbed into it with the hand. Internally the vasogens are taken in gelatin capsules or mixed with milk, coffee, tea, wine or cognac. The following remedies in combination with vasogen are largely used: iodoform, iodine, creosote, menthol, beta-naphthol, camphor-chloroform, ichthyol, guaiacol, sulphur and tar. These preparations are made by dissolving the various medicaments in the liquid vasogen during its process of manufacture. Mercury vasogen ointment (33 1-3 per cent. and 50 per cent.) is a special preparation with inspissated vasogen. It may be obtained in handy capsules containing three and four grammes each, can be rubbed into the skin much quicker and more thoroughly than the official blue ointment, is far more pleasant to use and costs no more.—*Pharmaceutical Era*, April 20, 1899.